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ABSTRACT

This report of the California State Postsecondary Education Commission discusses standardized testing at the higher education level in California and is comprised of three parts. Part 1 describes six tests related to undergraduate admission, placement, and financial assistance. Part 2 describes five tests required by graduate programs and professional schools for admission. For each of these tests, the report summarizes what the test is designed to measure, how it is formatted, and how it is used in California. The report also summarizes national and California participation and performance data by sex and major ethnic group for the last 5 years, to the extent this information is provided by the test sponsors. In addition to mean (average) test performance by group, the report reviews available data on the test's predictive validity and standard error of measurement that have implications for appropriate test use. Part 3 reviews the relations between standardized testing and college admission in California and the role testing companies have, or can have, in expanding access for Hispanic, Black, and American Indian students. The report concludes by identifying three areas in which further efforts are needed in order for the Commission to respond more completely to the authorizing statute. Appendices contain State Senate Bill 1416 and test sponsor materials. Contains 43 references. (GLR)

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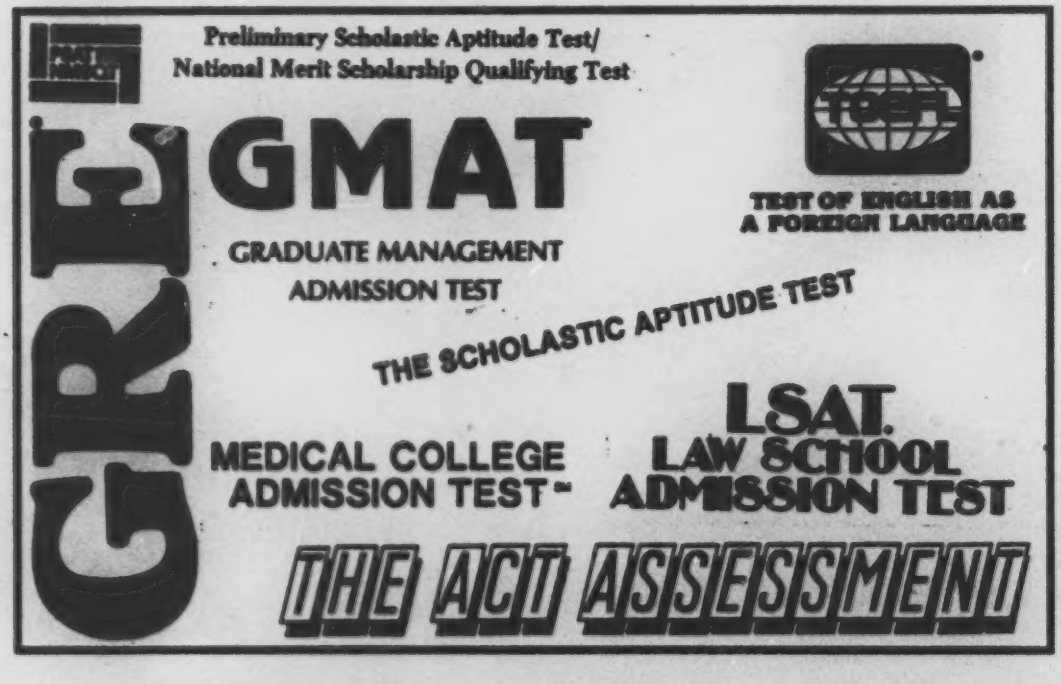
STANDARDIZED TESTS USED FOR HIGHER EDUCATION ADMISSION AND PLACEMENT IN CALIFORNIA DURING 1989



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CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

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Summary

This is the fifth annual Commission report on standardized testing in California. Part One describes six tests related to undergraduate admission, placement, and financial assistance -- the Preliminary Scholastic Aptitude Test (PSAT), the Scholastic Aptitude Test (SAT), College Board Achievement Tests, the American College Test (ACT), Advanced Placement Examinations, and the Test of English as a Foreign Language (TOEFL).

Part Two describes five tests required by graduate programs and professional schools for admission -- the Graduate Record Examinations (GRE), the Graduate Management Admission Test (GMAT), the Law School Admission Test (LSAT), the Medical College Admission Test (MCAT), and the California Basic Education Skills Tests (CBEST).

For each of these tests, the report summarizes what the test is designed to measure, how it is formatted, and how it is used in California. As required by statute, the report summarizes national and California participation and performance data by sex and major ethnic group for the last five years, to the extent this information is provided by the test sponsors. In addition to mean (average) test performance by group, the report reviews available data on the test's predictive validity and standard error of measurement that have implications for appropriate test use.

Part Three of the report reviews the relations between standardized testing and college admission in California and the role testing companies have or can have in expanding access for Hispanic, Black, and American Indian students. The report concludes by identifying three areas in which further efforts are needed in order for the Commission to respond more completely to the authorizing statute: (1) the validity of admission requirements, including standardized admission tests, at the State's public universities; (2) the factors that limit standardized admission test participation among certain student subgroups; and (3) alternative strategies to involve testing companies in cooperative actions to expand access to college.

The Commission adopted this report at its meeting on April 30, 1990, on the recommendation of its Policy Evaluation Committee. Additional copies of the report may be obtained from the Publication Office of the Commission at (916) 324-4991. Questions about the substance of the report may be directed to Jeanne Suhr Ludwig of the Commission staff at (916) 322-7987.

STANDARDIZED TESTS USED FOR HIGHER EDUCATION ADMISSION AND PLACEMENT IN CALIFORNIA DURING 1989

The First in a Series of Biennial Reports Published in Accordance with Senate Bill 1416 (Chapter 446, Statutes of 1989)

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
Third Floor • 1020 Twelfth Street • Sacramento, California 95814-3985

COMMISSION REPORT 90-16
PUBLISHED APRIL 1990

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Introduction

IN 1978, California became the first state to enact "truth-in-testing" or "test disclosure" legislation (Senate Bill 2005, Dunlap). That law, codified in Part 65 of the California Education Code, required sponsors of standardized admissions tests to file financial disclosure statements, copies of materials distributed to test-takers, and copies of recent tests with corresponding answers with the California Postsecondary Education Commission, provided that the test was administered to at least 3,000 individuals in California. This information then became public record, available to interested parties through the Commission's library.

In 1984, Senate Bill 1785 (Torres) amended Part 65 of the Education Code to require that sponsors of these tests also provide the Commission performance data that includes State and national averages and standard deviations by sex and ethnic group as well as the most recent findings of studies of the predictive validity of the tests. The Commission has published four reports on this information (1986, 1987, 1988, and 1989).

In 1989, Senate Bill 1416 (Torres) (reproduced in Appendix A on pages 33-36) revised the part of the Code that requires the Commission to report biennially on student participation and performance and predictive validity data for these standardized tests to the Governor, the Legislature, the Regents of the University of California, Board of Governors of the California Community Colleges, the Trustees of the California State University, and the Superintendent of Public Instruction. In addition, the Commission must "present specific recommendations on (1) methods to remove the inappropriate obstacles that standardized college admissions tests may provide in precluding some students from obtaining regular admission to public colleges and universities and (2) strategies to involve the testing companies in cooperative actions with schools, colleges, and universities to expand access to college for Hispanic, Black, and American Indian students."

This report is the fifth in the Commission's series on standardized tests in California and its format and content serve as a transition from the previous annual reports to the more comprehensive biennial reporting.

Role of standardized tests

Until the early 1900s, admission to most secondary and postsecondary educational institutions in America was reserved to certain social classes. Admission was determined almost exclusively by family ties and other associations not related to academic achievement or potential. As secondary education became more universal, institutions of higher education -- particularly land-grant colleges -- sought a more objective, academically grounded basis for making admission decisions.

Standardized tests were developed to identify those who were best prepared, either by nature or training, to perform well in the roles of undergraduate or graduate students. Colleges and universities saw test results as a more objective basis for selecting students that were more directly related to academic performance and potential than family ties, letters of recommendation, and personal interviews. They were instituted as a mechanism for reducing the potential for bias in the selection decision.

Two types of standardized tests developed -- achievement tests that were designed to measure student's knowledge in specific curricular areas such as English, mathematics, or science; and aptitude tests that were designed to measure general verbal and quantitative abilities, either natural or acquired, that are believed to be related to subsequent academic achievement. Currently, standardized examinations are major components of most admission criteria at California's public universities at the undergraduate and graduate level.

Considerable controversy surrounds the use of test results by higher education institutions and the impact on the higher education opportunities of certain groups of students, prompting the implementation of truth-in-testing legislation. While these laws have done little to resolve the controversies surrounding standardized examinations and their

use, the presentation of available data and review of key issues are fundamental to sound public policy review in this area.

Organization of the report

In compliance with the specification of the statutes, this 1990 report summarizes participation and performance data and test statistics for the major standardized tests used for higher education admission or placement and taken by at least 3,000 individuals in California. The report is organized into three parts.

- Part One on pages 3-18 describes six tests related to undergraduate admission, placement and financial assistance -- the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test, the Scholastic Aptitude Test, College Board Achievement Tests, the American College Test, Advanced Placement Examinations, and the Test of English as a Foreign Language.
- Part Two on pages 19-28 describes five tests required by graduate programs or professional schools -- the Graduate Record Examination, the Graduate Management Admission Test, the Law School Admission Test, the Medical College Admission Test, and the California Basic Education Skills Test.
- Part Three on pages 29-34 presents a review of the relations of standardized testing to college admission in California and the role testing companies have or can have in expanding access for Hispanic, Black, and American Indian students.

For each test, the report summarizes what the test is designed to measure and how it is used in California as well as the format of the test. Then the report presents California and national participation and performance data by sex and major ethnic group for the last five years, to the extent this information is provided by the test sponsors. In addition to mean (or average) test performance by group, the report reviews available data on the test's "predictive validity" and "standard error of measurement" that have implications for appropriate test use.

Predictive validity

The "predictive validity" of a test is a measure of the relationship or correlation between the test results and some other subsequent measure of student behavior, most commonly first-year college or program grade-point average. If knowledge of test results enabled one to predict grade-point averages with complete accuracy, the correlation would be perfect with a coefficient of 1, its maximum value. The correlation coefficient quantifies the amount of variation in the outcome results, such as grade-point average, that can be accounted for by the variation in performance on the predicting activity or test. The percentage of variation that can be explained equals the correlation coefficient squared (multiplied times itself) and then multiplied by 100. In the case where the predictive validity (or correlation) was 1, the predictor explained 100 percent of the variation in the outcome. If the predictive validity was a .5 correlation, 25 percent of the variation in the outcome result is explained by knowing the predictive measurement.

Standard error of measurement

Because no test is a perfect measure of knowledge in the areas tested, individuals would likely earn somewhat different scores if they took any test repeatedly even assuming no change in their knowledge of the area. The mean difference in the scores that individuals would earn each time they took the test is known as the "standard error of measurement" and can be estimated. When comparing scores of two individuals, the size of the difference between their score must be greater than the standard error of measurement before one can conclude any real difference in ability as measured by that test exists between the two test takers.

It is also important to recognize that the precision of any test is limited in part because it represents only a sample of questions that could be asked in the domain of the test. Also, people perform at different levels at different times for reasons not related to the test or their skills, such as physical condition or motivation.

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The financial disclosure information for 1988-89 submitted by sponsors of the tests covered by this report appears in Appendix B beginning on page 39. All information submitted by these sponsors is available to the public at the Commission's library, 1020 Twelfth Street, Third Floor, Sacramento, California. Generally the library is open during regular working hours -- 8:30 a.m. to 5:00 p.m., Monday through Friday. Information requests may be directed to the Commission's librarian at (916) 322-8031.

1 Tests Used for Undergraduate Admission, Placement, and Financial Awards

THIS PART of the report reviews the major nationally normed standardized test used for undergraduate admission, placement, and financial awards. For each test, the report identifies the nature of the test, what it is designed to measure, and how it is structured. It describes the current use of the test in California and presents data on participation and performance on the test by sex and major ethnic group over the past five years along with major test statistics -- standard error of measurement and predictive validity.

Because the focus of the enabling legislation was major nationally normed admission tests, a whole category of tests, that technically fits the description of tests in the statutes, has not been included in these reports. This category of tests is placement examinations administered by public colleges and universities to their entering students for the purpose of course placement. Major examples of these tests are the Subject A examination of the University of California, the Elementary-Level Mathematics (ELM) test and the English Placement Test (EPT) of the State University, and the array of tests used by community colleges as part of their matriculation efforts. The Commission expects to include data on these examinations in its next testing report, and it will review their role in its forthcoming report on student retention.

Preliminary Scholastic Aptitude Test/ National Merit Scholarship Qualifying Test (PSAT/NMSQT)

The Preliminary Scholastic Aptitude Test is an aptitude test designed to measure general verbal and mathematical abilities believed to be important for doing college work. The verbal section of the test consists of 65 multiple choice questions on antonyms, sentence completions, analogies, and reading comprehension. The first three verbal sections draw from four broad content areas -- aesthetic or philosophical, practical affairs, scientific, and human relations. The reading selections are taken from six areas: narrative or prose fiction, argumentative or polemical material, humanities, social studies, physical science, and biological science. The mathematics section consists of 33 regular multiple choice questions and 17 quantitative comparisons and covers content in the areas of arithmetic, algebra, and geometry. Test takers have 50 minutes per section or one hour and 40 minutes to complete the test.

Students receive a separate score for the verbal and math sections. Students' raw scores, which are the number of correct responses less a quarter or third of a point deduction for incorrect responses, are converted to PSAT scaled scores by a process known as "equating" which adjusts scores to account for minor differences in the difficulty between various editions or versions of the test. The scaled scores range from 20 to 80.

In California, as nationally, the PSAT is the qualifying mechanism for the National Merit Scholarship program, the National Achievement Scholarship Program for Black Students, and the National Hispanic Scholarship Program. PSAT scores are converted to Selection Index scores by multiplying the verbal score by two and adding the math score. Approximately 15,000 students nationally with the highest index scores are designated National Merit Scholarship Semifinalists. Allocation of semifinalist slots is determined for each state based on that state's percentage of the nation's total number of graduating seniors. Thus, the index score required to qualify for Semifinalist status varies among the states. Approximately 90 percent of the semifinalists are expected to complete the supplemental requirements necessary to qualify as Finalist. From this pool of approximately 13,500 students nationally, about 6,000 scholarships are awarded. Postsecondary education institutions can also receive directory information released by PSAT test takers for the distribution of recruitment and informational materials.

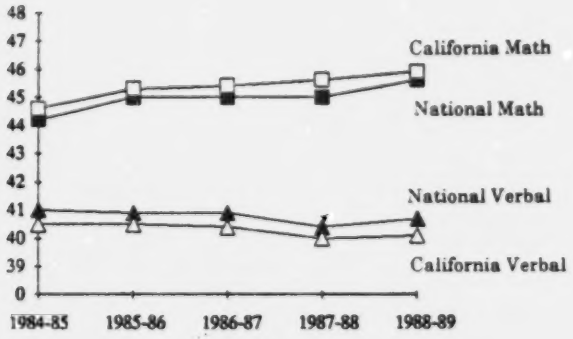
The PSAT is essentially a short version of the Scholastic Aptitude Test and as such can serve as a practice for that examination. Students receive comprehensive reports of their performance on the PSAT detailing questions answered correctly and incorrectly. Students and their counselors can use this material to focus SAT preparation activities. Counselors and other school personnel can use aggregate PSAT results as a component in their curriculum review.

Participation and performance

Nationally, 1,118,761 juniors took the PSAT in 1988-89, a 7 percent decrease from 1987-88. In California, 97,118 juniors completed the test for a 2 percent decrease from last year. A decline in the number of White juniors taking the test not only accounted for the overall decline but also offset increases in participation of students from all other ethnic subgroups. Display 1 below presents participation rates and mean PSAT verbal and math scores nationally and in California for the past five years.

In 1988-89, the mean verbal score nationally was 40.7 with a standard deviation of 10.2 and the mean math score was 45.6 with a standard deviation of 11.1. In California, the mean verbal score was 40.1 with a standard deviation of 10.8 and in math the mean score was 45.9 with a standard deviation of 11.5. California test takers have consistently scored slightly above the national average on the math section while their verbal scores have fallen below the national average. Over the last five years, California and national mean math scores increased while verbal scores declined somewhat. Displays 2 and 3 on the opposite page show the participation and performance on the PSAT nationally and in California, by sex and ethnic group since 1985.

DISPLAY 1 Mean PSAT Verbal and Math Scores Nationally and in California, 1985-89



Source: California Postsecondary Education Commission.

Displays 4 and 5 on page 6 shows the participation and performance of men and women nationally and in California on the PSAT. The majority of PSAT test takers are women and their representation has increased slightly over the last five years. The pattern of increases in math scores and decreases in verbal scores is consistent with the overall pattern, with the most marked decreases in verbal scores appearing among California male test takers. Women, both nationally and in California, have improved their mean math scores more than men.

Substantial differences in mean verbal and math scores exist among test takers from various ethnic groups in California, as Displays 6 and 7 on page 6 illustrate. While mean math scores increased for all ethnic groups, the size of the increase was greatest for American Indian and Hispanic test takers. Similarly, while the mean verbal scores declined for Asian and Hispanic test takers, mean verbal scores for White and American Indian test takers increased.

The standard error of measurement of the national PSAT verbal score is 3.5 points while for math scores, it is 3.6 points. Thus, if an individual took the PSAT many times, nine times out of ten his or her score could fluctuate by as much as ± 7 points on the verbal and math sections without indicating any true change in ability. Thus, small differences in reported scores in this range do not indicate any real differences in the ability of students but are probably attributable to errors of measurement inherent in the test.

Predictive validity

Because, by design, the PSAT is simply a short version of the SAT, the discussion of predictive validity accompanying the PSAT materials focused exclusively on the predictive validity of the SAT. This information is summarized in a subsequent section.

DISPLAY 2 Participation of High School Juniors Taking the PSAT/NMSQT Nationally and in California by Sex and Ethnicity, 1985 to 1988

Category	Number					Percent				
	1984-85	1985-86	1986-87	1987-88	1988-89	1984-85	1985-86	1986-87	1987-88	1988-89
National	1,139,864	1,181,571	1,246,640	1,201,827	1,118,761					
Men	520,151	537,170	563,776	543,437	505,230	45.7	45.5	45.3	45.2	45.2
Women	618,828	643,375	681,209	657,778	612,862	54.3	54.5	54.7	54.8	54.8
Asian	37,261	44,111	49,075	55,150	59,557	3.3	4.1	4.3	4.7	5.4
Black	76,074	78,542	87,724	93,615	92,597	7.4	7.3	7.7	8.0	8.4
American Indian	4,611	5,146	5,746	5,634	5,937	0.4	0.5	0.5	0.5	0.5
Hispanic/Latino	34,206	47,809	52,847	59,367	61,521	3.6	4.4	4.6	5.0	5.6
Other	18,481	9,382	10,326	11,549	11,613	1.8	0.9	0.9	1.0	1.1
White	860,839	897,878	938,784	951,214	866,814	83.5	82.9	82.0	80.8	78.9
No Response	108,382	98,703	102,138	25,198	20,722	9.5	8.4	8.2	2.1	1.9
California	95,403	99,499	104,718	99,306	97,118					
Men	43,449	45,275	47,727	45,132	44,070	45.6	45.6	45.6	45.5	45.4
Women	51,849	54,108	56,934	54,117	52,975	54.4	54.4	54.4	54.5	54.6
Asian	12,389	14,244	16,418	17,712	19,203	14.1	15.4	16.9	18.2	20.2
Black	5,019	5,287	5,539	5,707	5,771	5.7	5.7	5.7	5.9	6.1
American Indian	587	694	747	677	716	0.7	0.8	0.8	0.7	0.8
Hispanic/Latino	9,080	12,157	13,132	14,182	15,071	10.4	13.2	13.5	14.6	15.8
Other	3,270	1,681	1,941	2,124	2,203	3.7	1.8	2.0	2.2	2.3
White	57,223	58,354	59,207	56,870	52,334	65.3	63.1	61.0	58.5	54.9
No Response	7,835	7,082	7,734	2,034	1,820	8.2	7.1	7.4	2.0	1.9

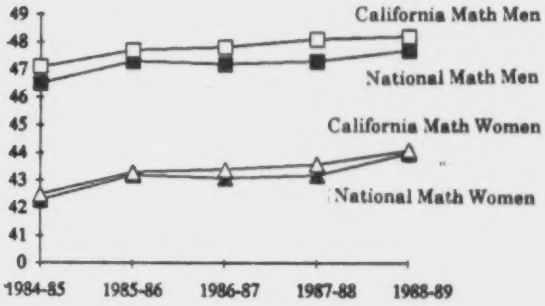
Source: PSAT/NMSQT Summary Reports, 1984-85 to 1988-89.

DISPLAY 3 Mean Scores of High School Juniors on the PSAT/NMSQT Nationally and in California by Sex and Ethnicity, 1984 to 1988

Category	National					California				
	1984-85	1985-86	1986-87	1987-88	1988-89	1984-85	1985-86	1986-87	1987-88	1988-89
Verbal										
Total	41.0	40.9	40.9	40.4	40.7	40.5	40.5	40.4	40.0	40.1
Men	41.5	41.5	41.6	41.1	41.1	41.0	41.2	41.1	40.1	40.4
Women	40.5	40.3	40.3	39.8	40.4	40.1	40.0	39.8	39.4	39.7
Asian						38.4	38.5	37.9	37.8	38.2
Black						34.1	34.2	34.4	33.9	34.4
American Indian						38.7	38.8	38.8	38.6	39.0
Hispanic/Latino						35.4	35.4	35.1	34.9	35.0
Other						36.6	missing	missing	38.2	38.3
White						42.7	42.7	42.8	42.7	42.9
Mathematics										
Total	44.2	45.0	45.0	45.0	45.6	44.6	45.3	45.4	45.6	45.9
Men	46.5	47.3	47.2	47.3	47.7	47.1	47.7	47.8	48.1	48.2
Women	42.3	43.2	43.1	43.2	44.0	42.5	43.3	43.4	43.6	44.1
Asian						47.7	48.7	48.4	48.6	49.1
Black						36.4	36.9	37.5	37.2	37.8
American Indian						41.5	42.2	42.3	42.5	43.4
Hispanic/Latino						38.6	39.1	39.5	39.8	40.5
Other						40.7	missing	missing	43.4	44.3
White						45.9	46.8	46.7	47.2	47.4

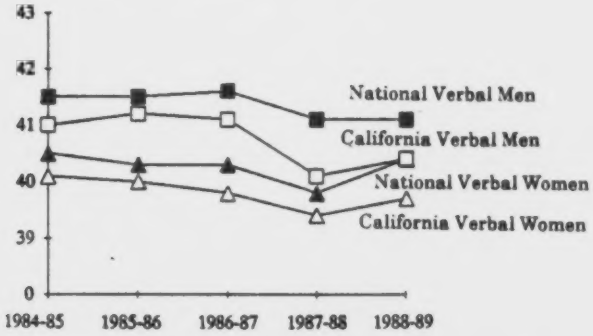
Source: PSAT/NMSQT Summary Reports, 1985-86 to 1988-89.

DISPLAY 4 Mean PSAT Math Scores Nationally and in California for Men and Women, 1985-89



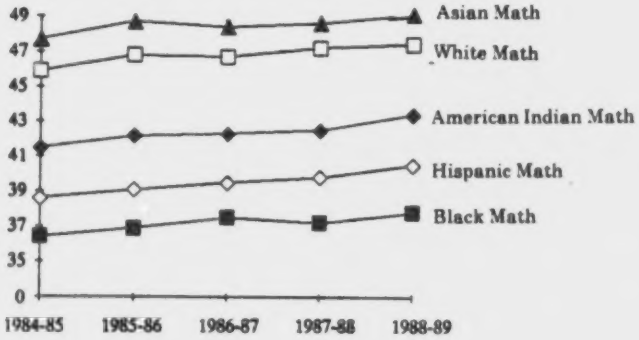
Source: California Postsecondary Education Commission.

DISPLAY 5 Mean PSAT Verbal Scores Nationally and in California for Men and Women, 1985-89



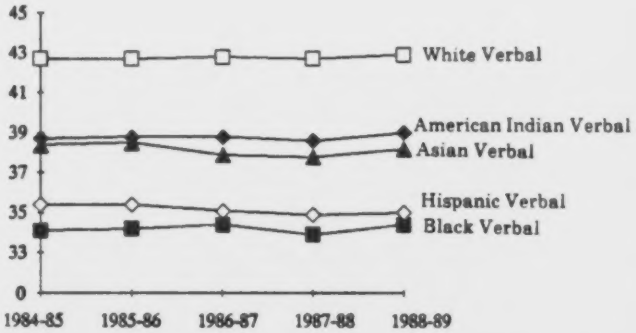
Source: California Postsecondary Education Commission.

DISPLAY 6 Mean PSAT Math Scores in California by Ethnicity, 1985-89



Source: California Postsecondary Education Commission.

DISPLAY 7 Mean PSAT Verbal Scores in California by Ethnicity, 1985-89



Source: California Postsecondary Education Commission.

Scholastic Aptitude Test

The Scholastic Aptitude Test (SAT) is a slightly longer and more difficult version of the PSAT and as such is an aptitude test designed to measure developed verbal and mathematical reasoning abilities related to academic performance in college, as indicated in the predictive validity section below. The two and one-half hour test includes 85 multiple choice questions in the verbal sections and 60 questions in the mathematics sections and the structure of the questions and the content areas covered are the same as on the PSAT. Test takers receive a verbal score and a math score that range from 200 to 800.

Because the subject matter of high school courses as well as grading standards vary widely, the tests have been developed to provide a common standard against which students can be compared. It is intended to supplement the secondary school record and other information about the student in assessing readiness for college-level work (ATP Guide for High Schools and Colleges).

SAT scores are components of the admission criteria for the University of California and the California State University. At the University, all applicants are required to submit SAT (or ACT, described below)

results. However, for applicants who have completed the prescribed University preparatory curriculum with a high school grade-point average above 3.3, test scores are used for placement purposes only. To be eligible for regular admission, applicants with grade-point averages between 2.78 and 3.3 in the prescribed curriculum must achieve a minimum total SAT score (or composite ACT score) as specified by the University's Eligibility Index.

The State University also requires applicants to complete a prescribed pattern of high school courses but an applicant's grade-point average is computed on the basis of all course work except physical education and military science. The State University does not require students with high school grade-point averages above 3.0 to submit test results. For applicants with grade-point averages between 2.0 and 3.0, the student must achieve a minimum total SAT score (or composite ACT score) as specified by the State University's Eligibility Index to be eligible for regular admission. (For a more comprehensive review of segmental freshman admission criteria, refer to the Commission's March 1988 report, *The Eligibility of California's 1986 High School Graduates for Admission to its Public Universities.*)

Participation and performance

In 1988-89, 1,088,223 students took the SAT nationally, a 4 percent decrease over 1987-88. In California, 115,552 students completed the SAT, representing a negative change of 3.5 percent from 1987-88. Because SAT test takers include juniors and seniors and even some sophomores, it is difficult to compute participation rates or changes in test participation compared to changes in the size of the high school population. Displays 8 and 9 below and on page 8 present the participation and performance data on the SAT nationally and in California since 1985.

The national mean verbal SAT score in 1988-89 was 427 with a standard deviation of 111 while the mean math SAT score was 476 with a standard deviation of 121, showing virtually no change since 1987-88, as illustrated by Display 10 on page 8. In California, the mean verbal score was 422 with a standard deviation of 113, down somewhat from the

DISPLAY 8 Participation in the SAT Nationally and in California by Sex and Ethnicity, 1985 to 1989

Category	Number					Percent				
	1984-85	1985-86	1986-87	1987-88	1988-89	1984-85	1985-86	1986-87	1987-88	1988-89
National										
Total	1,052,351	1,075,554	1,080,426	1,134,364	1,088,223					
Men	507,843	517,262	520,326	544,065	521,229	48.3	48.1	48.2	48.0	47.9
Women	544,508	558,292	560,100	590,299	566,994	51.7	51.9	51.8	52.0	52.1
Asian	42,637	N.A.	58,216	64,102	68,254	4.1	N.A.	5.4	5.7	6.3
Black	79,556	N.A.	88,037	97,483	96,615	7.6	N.A.	8.1	8.6	8.9
American Indian	4,642	N.A.	10,107	12,330	18,005	0.4	N.A.	0.9	1.1	1.7
Hispanic/Latino	30,603	N.A.	49,913	54,432	57,864	2.9	N.A.	4.6	4.8	5.3
Other	21,555	N.A.	13,102	14,094	13,454	2.0	N.A.	1.2	1.2	1.2
White	715,773	N.A.	788,613	813,116	752,257	68.0	N.A.	73.0	71.7	69.1
No Response	157,585	N.A.	72,438	78,807	81,774	15.0	N.A.	6.7	6.9	7.5
California										
Total	113,960	117,723	117,198	119,784	115,552					
Men	54,495	56,131	56,148	57,271	55,312	47.8	47.7	47.9	47.8	47.9
Women	59,465	61,592	61,050	62,513	60,240	52.2	52.3	52.1	52.2	52.1
Asian	14,822	N.A.	19,322	21,026	21,268	13.0	N.A.	16.5	17.6	18.4
Black	6,435	N.A.	7,129	7,247	7,294	5.6	N.A.	6.1	6.1	6.3
American Indian	759	N.A.	1,347	1,577	1,892	0.7	N.A.	1.1	1.3	1.6
Hispanic/Latino	9,437	N.A.	13,395	14,220	15,566	8.3	N.A.	11.4	11.9	13.5
Other	3,737	N.A.	2,372	2,741	2,761	3.3	N.A.	2.0	2.3	2.4
White	61,650	N.A.	67,114	65,647	58,851	54.1	N.A.	57.3	54.8	50.9
No Response	17,120	N.A.	6,519	7,326	7,920	15.0	N.A.	5.6	6.1	6.9

N.A. = Not Available.

Source: Profiles of SAT and Achievement Test Takers, National Reports and California Reports, 1985-89.

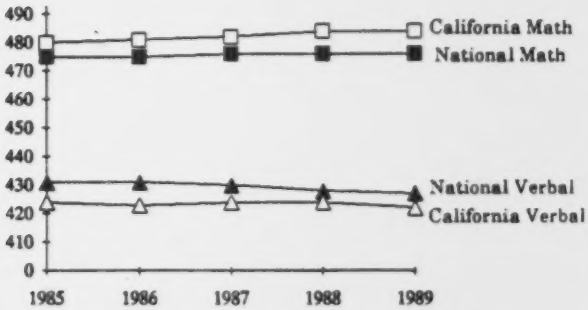
DISPLAY 9 Mean Scores of Test Takers on the SAT Nationally and in California by Sex and Ethnicity, 1985 to 1989

Category	National					California				
	1984-85	1985-86	1986-87	1987-88	1988-89	1984-85	1985-86	1986-87	1987-88	1988-89
Verbal										
Total	431	431	430	428	427	424	423	424	424	422
Men	437	437	435	435	434	431	428	430	430	429
Women	425	426	425	422	421	419	418	418	417	416
Asian	404	N.A.	405	408	409	385	N.A.	387	390	392
Black	346	N.A.	351	353	351	355	N.A.	359	362	363
American Indian	392	N.A.	393	393	384	408	N.A.	408	408	401
Hispanic/Latino	381	N.A.	378	378	380	381	N.A.	377	378	378
Other	391	N.A.	405	410	414	391	N.A.	419	425	426
White	449	N.A.	447	445	446	454	N.A.	453	453	455
Mathematics										
Total	475	475	476	476	476	480	481	482	484	484
Men	499	501	500	498	500	506	508	508	508	510
Women	456	451	453	455	454	452	456	458	461	461
Asian	518	N.A.	521	522	525	505	N.A.	508	509	512
Black	376	N.A.	377	384	386	386	N.A.	388	392	397
American Indian	428	N.A.	432	435	428	445	N.A.	456	457	448
Hispanic/Latino	424	N.A.	422	424	427	422	N.A.	423	426	428
Other	452	N.A.	455	460	467	452	N.A.	476	481	486
White	490	N.A.	489	490	491	497	N.A.	499	501	504

N.A. = Not available due to change in SDQ form.

Source: Profiles of SAT and Achievement Test Takers, National Reports and California Reports, 1985 to 1989.

DISPLAY 10 Mean SAT Verbal and Math Scores Nationally and in California, 1985-89



Source: California Postsecondary Education Commission.

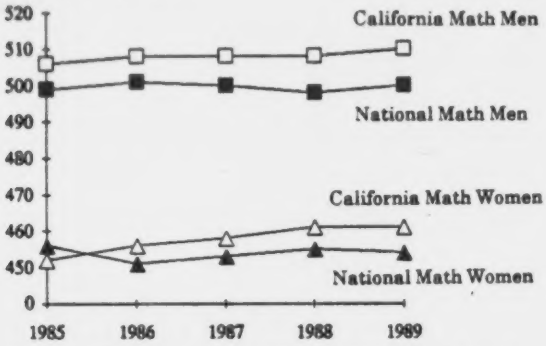
previous year, while the mean math score of 484 with a standard deviation of 121 was unchanged from the previous year. Mean math scores nationally have been very stable over this period while California mean math scores have risen slightly. At the same time, mean verbal scores in California have been quite stable until the current year when they dropped 2 points while nationally the mean verbal scores have declined slightly over the entire period

Mean math test results among Californians continue to exceed the national average while mean verbal scores among Californians remain somewhat below the national average. However, the gap between the national and California mean verbal scores has narrowed somewhat.

Examination of differential trends in math and verbal scores for men and women as presented in Displays 11 and 12 on page 9 highlight the sources of the overall trends noted above. Improvement in math scores among California women disproportionately accounted for the overall improvement in the mean math score in California. Conversely, the declines in mean verbal scores for women accounted for most of the decline in the overall verbal mean nationally while the recent drop in California scores occurred at a similar level for men and women.

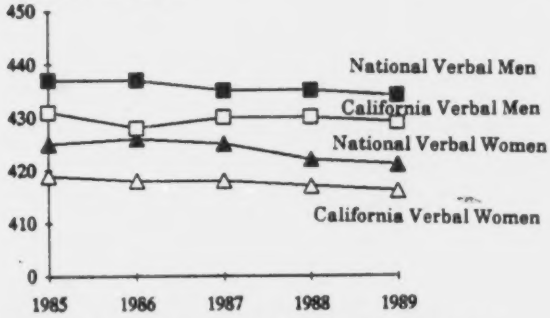
As in the case of the PSAT results, major differences exist among California's ethnic groups in their mean scores on the verbal and math sections of the SAT, illustrated by Displays 13 and 14 on page 9. Mean math performance improved for all groups since 1985, with Black test takers showing the greatest average score gain. Changes in achieve-

DISPLAY 11 Mean SAT Math Scores Nationally and in California for Men and Women, 1985-89



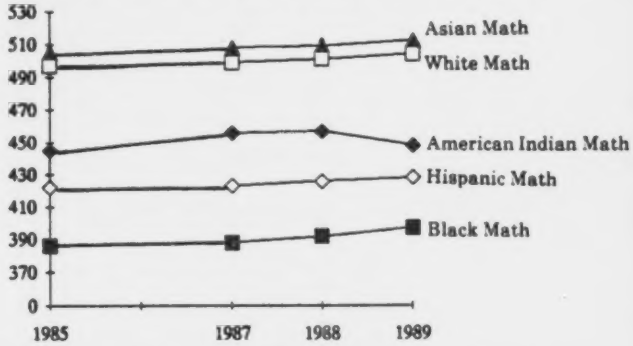
Source: California Postsecondary Education Commission.

DISPLAY 12 Mean SAT Verbal Scores Nationally and in California for Men and Women, 1985-89



Source: California Postsecondary Education Commission.

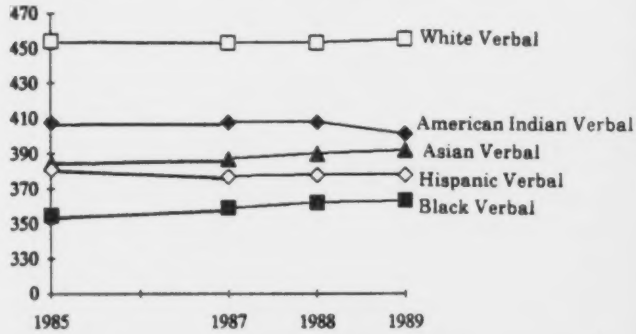
*DISPLAY 13 Mean SAT Math Scores in California by Ethnicity, 1985-89**



* Because of changes in the Student Description Questionnaire, comparable background characteristics are not available for 1986.

Source: California Postsecondary Education Commission.

*DISPLAY 14 Mean SAT Verbal Scores in California by Ethnicity, 1985-89**



* Because of changes in the Student Description Questionnaire, comparable background characteristics are not available for 1986.

Source: California Postsecondary Education Commission.

ment on the verbal section were mixed, with Black and Asian test takers showing some improvement in their mean group scores while the mean scores for Hispanic and American Indian test takers declined. The gap between the scores of the highest and lowest performing groups has narrowed slightly in recent years, but it remains substantial.

The standard error of measurement for the SAT verbal and math sections historically has been approximately 35 points on each section. If an individual were to take the SAT repeatedly, even assuming no change in the individual's knowledge or abilities, nine times out of ten their total score could fluctuate by as much as 70 points. The College Board advises that the difference between two scores is not significant until it exceeds 1.5 times the standard error of measurement. Thus, differences between individuals' scores on each section of less than 70 probably do not indicate any real differences in their ability as measured by this test.

Predictive validity

Predictive validity indicates a test's effectiveness in predicting a student's performance. Studies of the predictive validity of the SAT tests compare the pre-

dicting variables such as SAT scores and high school grade-point averages with freshman year grade-point averages. The ATP Guide for High Schools and Colleges summarizes predictive validity studies for 685 colleges and universities which examined the correlation between the grade-point averages of their freshman class and their SAT scores and high school grade-point averages. The median predictive validity correlation for high school grades alone was .48, that is half of the studies yielded predictive validity correlations of less than .48 and half showed predictive validity correlations of more than .48. The median predictive validity correlation for SAT scores alone was .42 while the correlation for grades and tests combined was .55. Thus, high school grades and SAT scores explain about 30 percent of the variation in freshman grade-point averages. High school grades alone explain about 23 percent while SAT scores alone explain about 18 percent of the variation. SAT scores when used in conjunction with high school grades provide a somewhat better indicator of freshman grades than would high school grades alone. The summary data show that this relation holds for men and women separately but no summary information was available in that document about the relative predictive validity for each ethnic group.

The College Board's Technical Handbook for the Scholastic Aptitude Test and Achievement Tests provides more detailed information about the predictive validity of the SAT. It organizes the findings of the 685 studies into more homogeneous categories. The predictive validity correlation for four-year public institutions of the SAT alone is .38, for high school grades alone is .44, and combined SAT and grades is .51. Data from studies in the western region show the validity coefficient for SAT alone of .42, for high school grades alone of .47, and for grades and SAT combined of .55.

This document also summarizes the finding on predictive validity of SAT scores and high school grades for freshman grade-point averages for Black freshmen at 11 predominantly White institutions. No information on regional location or institutional control type is given. The SAT alone does not predict as well for Black students in predominantly White institutions as for other students -- predictive validity coefficient of the SAT alone for Black students being .30 compared to .38 for other students. However, high school grades provide even less information about freshman year performance of Black students with a predictive validity coefficient of .25 compared to .42 for other students. The predictive validity coefficient for high school grades and SAT scores combined for Black freshmen is .37 compared to .49 for other students. These standard measures provide less information about variability of freshman grades for Black students than for other students.

In four studies that examined the predictive validity of SAT scores and grades for Hispanic freshmen, the results were similar to those for Black students. While no specific predictive validity coefficients were presented, the report states (p. 159):

> In terms of predictive validity, correlations with freshman grade point averages were generally lower for Hispanic students for both SAT scores and high school record. The proportional contribution of SAT verbal score to predictive effectiveness was 15 percent lower for Hispanic students than other students; the offsetting increases were 10 percent for SAT mathematical score and 5 percent for high school record.

College Board Achievement Tests

The College Board Achievement Tests are curricular-based achievement tests designed to measure knowledge and the ability to apply that knowledge in 14 specific subject areas. While these tests are curriculum based, they are independent of particular textbooks or methods of instruction and are designed to assess outcomes of courses that students have taken recently. Each test is one hour and has multiple choice format except the December English Composition Test that includes a 20 minute essay. Achievement Test scores range from 200 to 800.

Scores from three College Board Achievement Tests are components of the admission requirements for the University of California. Applicants to the University are required to submit scores from the English Composition Test, the Mathematics I or Mathematics II Tests, and a score from English Literature, foreign languages, science, or social studies. No minimum score is required as part of the regular admission process. University officials state that scores are used for student advisement on place-

ment in certain subject areas. Students may also achieve eligibility for admission to the University by test scores alone if his/her combined SAT score is at least 1100 (or composite ACT is 26) and their total score on the three Achievement Tests is 1650 or higher, with a minimum score of 500 on each test. Achievement Test scores are not an admission requirement or option at the California State University.

Participation and performance

Display 15 below shows the number of test takers and mean scores on the English Composition test and the two mathematics tests for California and the nation in the last five years. California students comprise over 20 percent of all Achievement Test takers nationally. While participation nationally in the Achievement Tests has increased slightly over the past five years, participation in California has increased substantially -- 18 percent in English Composition, 19 percent in Math I, and 33 percent in Math II.

California Achievement Test takers have consistently earned lower scores in all areas except Spanish. Nationally, English Composition scores have been quite stable while they have declined in California. In mathematics, mean scores on Math Levels I and II have increased both nationally and in California with California mean scores increasing somewhat more than the national means. Data on differential participation and performance on Achievement Tests for men and women and among members of various ethnic subgroups were not available.

Historical information on the standard errors of measurement for Achievement Tests is presented in The College Board Technical Handbook for the Scholastic Aptitude Test and Achievement Tests. The standard error of measurement for the English Composition test is ± 29.0 points, for the Math I test ± 33.6 points, and for the Math II test ± 31.9 points.

Predictive validity

The Technical Handbook summarizes the findings of Achievement Test validity studies conducted between 1964 and 1981. In these studies, the average correlation of Achievement Test scores with freshman grade-point averages was 37 However, Achievement Test results add very little to the predictive information provided by the combination of SAT scores and high school grades. The combination of SAT scores and grades have a mean correlation of .52 with freshman grades; the correlation increases to .55 when Achievement Test results are added.

American College Test

The American College Assessment Program consists of four timed achievement tests in English Usage, Mathematics Usage, Social Studies Reading,

DISPLAY 15 Participation and Mean Achievement Test Scores in English Composition, Mathematics Level I, and Mathematics Level II in the SAT Nationally and in California, 1985 to 1989

Category	Participation					Mean Scores				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
English Composition										
National	188,811	192,498	190,051	206,515	196,352	523	522	524	521	523
California	38,122	39,563	43,038	45,624	45,040	494	496	496	490	491
Mathematics Level I										
National	148,254	149,562	153,781	158,779	150,460	540	541	548	549	548
California	31,138	32,087	35,331	37,520	37,116	515	518	525	530	525
Mathematics Level II										
National	45,890	50,261	54,095	56,553	55,681	658	660	662	664	666
California	9,047	10,079	11,100	11,753	12,008	643	646	646	651	652

Source: College Board, "National and California Reports College-Bound Seniors, 1985 to 1988."

and Natural Science Reading. The four tests are curricular based and are designed to assess content-specific skills developed over the students' time in high school. The total test time is two and one-half hours. Raw scores are converted to standard scores on a scale from 1 to 36 for each test. The test taker receives scores in each area and a composite score that is the arithmetic average of the four area scores.

As indicated above, ACT composite scores can be used to fulfill the examination requirement for admission to the University of California and the California State University as specified by each segment's Eligibility Index. ACT assessment materials may also be used for placement and counseling purposes by the universities.

The American College Test Program also administers a Preliminary ACT which is designed to be a tenth grade academic assessment and guidance tool. In 1989, 8,426 California students took the P-ACT. Commission staff will begin including comprehensive P-ACT information in its 1992 report.

Participation and performance

Nationally, 855,171 students took the ACT in test year 1988-89, a 1.5 percent increase over the previous year. While California's 17,542 ACT test takers represent only 2 percent of the national group, participation in the ACT in California increased 16 percent over the previous year. Display 16 below presents the participation and performance data on the ACT, nationally and in California since 1985.

The mean composite ACT score nationally in 1989 was 18.6, a 0.2 point drop from 1988 and in California the mean composite ACT score in 1989 was also 18.6, a 0.5 point decline. The mean scores on the subject area test nationally were as follows: 18.4 in English, 17.1 in Mathematics, 17.2 in Social Science, and 21.2 in Natural Science. In California, the mean scores were 18.0 in English, 18.3 in Mathematics, 17.1 in Social Science, and 20.6 in Natural Science. While California and national ACT composite scores are virtually identical, some interesting differences in the subject area test results persist. California test takers continue to achieve above the

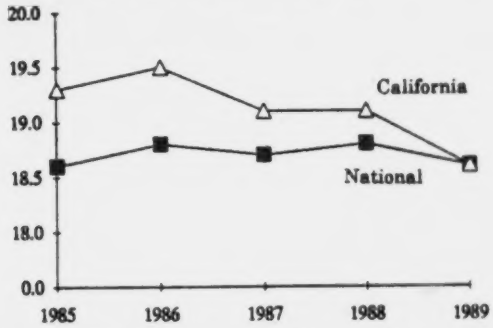
DISPLAY 16 Mean and Composite Scores and Participation of Test Takers on the ACT Nationally and in California by Sex and Ethnicity, 1985 to 1989

Category	National					California				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
Composite Score										
Total	18.6	18.8	18.7	18.8	18.6	19.3	19.5	19.1	19.1	18.6
Men	19.4	19.6	19.5	19.6	19.3	20.5	20.4	20.1	20.1	19.4
Women	17.9	18.1	18.1	18.1	18.0	18.4	18.8	18.3	18.4	18.0
Asian	19.2	19.6	19.8	19.8	19.9	19.6	19.9	20.1	19.7	19.9
Black	13.0	13.0	13.4	13.6	13.6	13.9	14.1	14.4	14.1	14.2
American Indian	14.4	14.4	14.6	14.8	14.7	16.0	16.5	16.3	18.3	17.2
Hispanic/Latino	15.1	15.6	15.8	16.0	15.9	16.3	16.3	16.2	16.2	15.2
White	19.9	19.9	19.7	19.5	19.4	20.3	20.6	20.2	20.3	20.2
Participation										
Total	738,836	729,606	777,444	842,322	855,171	10,658	11,377	13,803	15,104	17,542
Men	338,668	334,126	356,704	385,475	391,377	4,764	5,119	6,289	6,733	7,757
Women	400,168	395,480	420,740	456,847	463,794	5,894	6,258	7,514	8,371	9,785
Asian	10,926	11,747	13,558	15,432	17,301	897	1,157	1,401	1,703	1,951
Black	58,526	58,275	61,129	68,781	73,461	650	729	922	1,151	1,337
American Indian	6,779	6,632	7,247	8,003	8,995	108	116	144	144	178
Hispanic/Latino	22,561	22,590	24,612	27,878	31,988	715	964	1,353	1,653	2,454
White	586,301	571,956	600,329	640,027	649,923	7,301	7,297	8,444	8,752	9,433
No Response	23,785	23,016	25,375	27,088	27,292	987	1,114	1,539	1,701	2,189

Sources: American College Tests "Executive Summary California ACT Assessment Results", 1989, and "Trend Tables for ACT-Tested Students - California", 1989.

national average in mathematics and below the national average in natural sciences. Display 17 presents the trends in ACT mean composite scores nationally and in California since 1985. At the beginning of this period, the mean composite score for California test takers was considerably above the national mean score. However, over this period, Californians' average performance declined such that in 1989 national and State mean composite scores were equal. The subject area test scores in which California test takers showed the greatest declines were social science and natural science.

DISPLAY 17 National and California ACT Composite Score Means, 1985-89

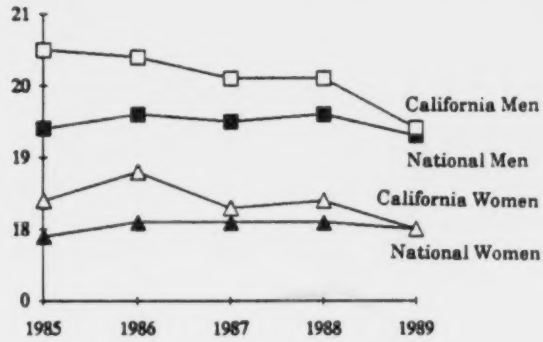


Source: California Postsecondary Education Commission.

As illustrated in Display 18 at the right, mean performance on the ACT for women both nationally and in California is lower than that of men. While the tests scores for both men and women contributed to the overall decline in California scores, the mean composite score for men declined by twice as many points as did that of women. This relative decline in performance held true in all subject area tests as well.

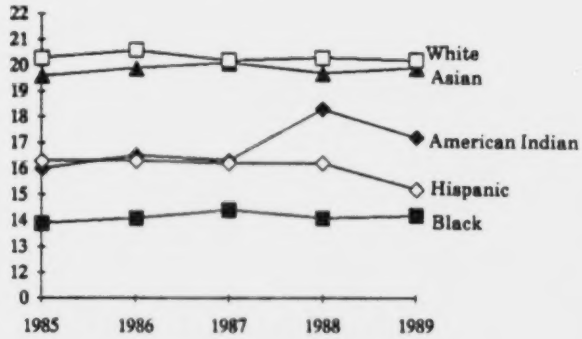
As was the case for other standardized tests already presented, marked differences in mean composite test scores exist among ACT test takers from various ethnic groups in California as shown in Display 19. The most noticeable trend occurred for American Indian test takers. Between 1985 and 1987, their composite scores were very stable and then in 1988 it increases two full points. In the current year, their mean score fell one point. The causes of these changes cannot be determined from the available

DISPLAY 18 National and California ACT Mean Composite Scores for Men and Women, 1985-89



Source: California Postsecondary Education Commission.

DISPLAY 19 California ACT Composite Mean Score by Ethnicity, 1985-89



Source: California Postsecondary Education Commission.

data. The number of American Indian test takers in California did not change very much during this period. However, because there are so few American Indians participating in this test (only 178 in 1988), the influence of individual test takers' performance on the mean composite score is greater than is the case for larger subgroups. Since 1985, mean composite ACT scores for Asian and Black test takers in California have increased slightly (.3) while test scores for White test takers have declined slightly (.1). Mean composite scores for Hispanic test takers have declined by nearly one full point (.9). During this same period, Hispanic participation on the ACT

has tripled. The decline in the composite score for Hispanic test takers reflects similar declines in their scores on the English, Social Science, and Natural Science test; their scores on the Math test declined only slightly over this period.

Analysis of students' performance on the ACT between October 1983 and June 1986 yielded a mean standard error of measurement for the composite score of 1.2 points. Thus, if the same individual with no change in knowledge took the ACT repeatedly, nine times out of ten his or her true score could vary by as much as ±2.4 points. This known measurement error is one of the reasons why test scores should not be the sole basis for selection between students with comparable course work and achievement but who have ACT score differences in this range.

Predictive validity

The ACT Assessment Program Technical Manual presents predictive validity findings based on a study that included data from 510 colleges. The study examined the relationship or correlation of first semester freshman grades with the four ACT subject area test scores and high school grade-point averages. The median predictive validity correlation of high school grades alone with first semester freshman grades was .44 while the correlation of the four test scores was .48. High school grades and test scores combined have a predictive validity correlation of .55. Thus, ACT scores, when used in conjunction with high school grades, explain as much of the variation in first semester freshman grades as do SAT scores and high school grades in explaining freshman-year grades. The level of predictive validity of the ACT scores and high school grades hold for men and women separately but specific validity correlations for various ethnic subgroups are not included in this report.

A 1981 ACT Research Bulletin described a study of differential predictive validity for students from different ethnic subgroups using data from 271 institutions. The Bulletin presented the predictive correlations between freshman grades and the combination of high school grades and ACT test scores for Black test takers as .48, .55 for Hispanic test takers, and .56 for White test takers.

Advanced Placement Examinations

Advanced Placement Examinations are achievement tests offered in 15 subject areas and are designed to assess students' mastery of advanced placement course work, for which the College Board provides the high schools with the curricular guidelines and materials, and the final examinations are designed and administered by the Educational Testing Service. The format and duration of the examinations varies by the nature of the subject area but generally they include a multiple choice portion and a free response portion and are two to three hours in length. Each test yields a score between 1 (no recommendation) and 5 (extremely well qualified). About 30 percent of the nation's high schools offer college-level instruction in the form of advanced placement classes. In California, about 874 public and private high schools offer advanced placement courses.

Most of California's public and private accredited universities award either academic credit, advanced placement, or course waivers to students receiving a grade of 3 or better on any Advanced Placement Examination. A full summary of participation and performance on Advanced Placement Examinations nationally and in California in 1989 appears in Appendix B. Display 20 on page 15 presents the participation and performance on the six examinations taken by at least 3,000 California students in 1985 and 1989. The subject areas are American History, Biology, English Language and Composition, English Literature and Composition, Calculus A/B, and Spanish Language.

Participation and performance

Participation in Advanced Placement examinations has grown substantially over the past five years. Nationally, 455,996 Advanced Placement examinations were taken in 1988-89, a 8.8 percent increase from last year and a 64 percent increase over 1985. In California, 78,379 examinations were taken, an 11.8 percent increase over last year and a 82 percent increase in the last five years. Of the six subject areas in which the largest number of examinations were completed, the increase in national participation in calculus was disproportionate and in California, a disproportionately large increase in participation also occurred in Spanish. In spite of

DISPLAY 20 Participation and Mean Score on Selected Advanced Placement Examinations in California in 1985 and 1989

1985

Category	American History		Biology		English Language		English Literature		Calculus		Spanish	
	Number	Score	Number	Score	Number	Score	Number	Score	Number	Score	Number	Score
National	58,684	3.07	22,512	3.10	12,720	3.05	68,074	3.05	35,792	2.90	8,695	3.34
California	10,564	3.06	2,699	3.28	2,266	2.95	10,806	3.04	4,705	3.15	2,613	3.47
Men	5,497	3.19	1,469	3.34	998	2.95	4,647	3.00	2,907	3.29	1,051	3.41
Percent	52.1		54.5		44.1		43.0		61.9		40.2	
Women	5,057	2.91	1,227	3.22	1,266	2.94	6,155	3.08	1,790	2.94	1,562	3.52
Percent	47.9		45.5		55.9		57.0		38.1		59.8	
Asian	1,764	3.11	587	3.32	335	2.80	1,522	2.91	1,349	3.18	195	2.87
Percent	19.4		25.6		16.6		16.1		32.6		8.6	
Black	226	2.50	39	2.41	44	2.89	244	2.25	62	2.50	47	2.43
Percent	2.5		1.7		2.2		2.6		1.5		2.1	
American Indian	43	2.93	10	2.40	11	2.36	46	2.78	16	3.25	7	2.86
Percent	0.5		0.4		0.5		0.5		0.4		0.3	
Hispanic/Latino	592	2.74	94	2.78	128	2.52	573	2.69	252	2.73	761	4.37
Percent	6.5		4.1		6.3		6.1		6.1		33.4	
Other	196	2.89	44	3.16	37	2.89	210	3.05	103	2.97	50	3.52
Percent	2.2		1.9		1.8		2.2		2.5		2.2	
White	6,292	3.09	1,519	3.34	1,467	3.03	6,864	3.12	2,356	3.20	1,217	3.00
Percent	69.0		66.2		72.6		72.6		56.9		53.4	
No response	1,451	3.09	406	3.25	244	2.92	1,347	3.13	567	3.19	336	3.66

1989

Category	American History		Biology		English Language		English Literature		Calculus		Spanish	
	Number	Score	Number	Score	Number	Score	Number	Score	Number	Score	Number	Score
National	87,971	2.80	31,685	3.02	23,171	3.02	97,457	3.10	59,611	3.05	18,602	3.31
California	15,464	2.78	5,025	3.20	4,031	2.98	15,475	3.09	9,081	3.18	6,439	3.56
Men	7,753	2.91	2,637	3.30	1,736	2.96	6,377	3.07	5,314	3.28	2,497	3.54
Percent	50.1		52.5		43.1		41.2		58.5		38.8	
Women	7,711	2.64	2,388	3.09	2,295	3.00	9,098	3.10	3,767	3.04	3,942	3.56
Percent	49.9		47.5		56.9		58.8		41.5		61.2	
Asian	3,925	2.80	1,774	3.23	848	2.87	3,153	3.00	3,251	3.19	807	2.92
Percent	27.2		38.1		22.8		21.9		38.2		13.3	
Black	363	2.24	71	2.89	98	2.58	455	2.52	157	2.38	83	2.65
Percent	2.5		1.5		2.6		3.2		1.8		1.4	
American Indian	119	2.56	24	2.17	26	2.96	76	2.84	29	2.90	22	2.32
Percent	0.8		0.5		0.7		0.5		0.3		0.4	
Hispanic/Latino	1,464	2.40	242	2.70	323	2.46	1,334	2.62	741	2.68	3,007	4.19
Percent	10.2		5.2		8.7		9.3		8.7		49.4	
Other	417	2.75	134	3.01	114	2.91	426	3.08	212	3.09	101	3.14
Percent	2.9		2.9		3.1		3.0		2.5		1.7	
White	8,120	2.84	2,412	3.24	2,312	3.09	8,942	3.21	4,115	3.31	2,064	2.96
Percent	56.4		51.8		62.1		62.2		48.4		33.9	
No response	1,056	2.96	368	3.29	310	3.12	1,089	3.16	576	3.16	355	3.50

Source: The College Board, 1985 Advanced Placement Program, National and California Summary Reports.

the tremendous growth in participation, overall performance on test examinations has changed little over the last five years except for a noticeable decline in United States History scores in 1989.

Overall, more examinations were taken by men than by women. Men completed more examinations than women in mathematics, science and social science areas, while more women than men completed examinations in English, foreign languages, and fine arts. However, the only subject areas in which mean scores of California women were greater than those of men were in English, French Literature, and German Language.

Participation and performance on Advanced Placement examinations varied considerably among California test takers from different ethnic groups. While the numbers of test takers in all ethnic subgroups in California increased substantially, the proportion of White test takers who completed the six examinations listed in Display 20 dropped from 65 percent in 1985 to 56 percent in 1989. The proportion of test takers who were Asian increased by the largest margin -- 4 percentage points. Hispanic proportional representation also increased by 3.7 percentage points, primarily the result of a 10 percentage point increase in their participation in the Spanish exam. The increase in the proportion of Black test takers was very slight -- only .1 of a percentage point. Despite these gains, participation of Black and Hispanic high school students in Advanced Placement examinations is far below their representation in the State's high school student population.

For the six examinations in Display 20, mean scores for Black test takers were below the qualifying score of 3. Among Hispanic test takers, their mean score of 4.19 on the Spanish exam was the only one in which a qualifying average was attained. For Asian test takers, mean scores below the qualifying 3 occurred in American History, English Language and Spanish while White test takers failed to achieve a mean score at or above the qualifying score of 3 in American History and Spanish.

Information on the standard errors of measurement and predictive validity of Advanced Placement examinations is not currently available.

Test of English as a Foreign Language

The Test of English as a Foreign Language (TOEFL) evaluates the English proficiency of test takers whose native language is not English. The test consists of three sections: Listening Comprehension that measures the ability to understand English as spoken in North America; Structure and Written English that measures the ability to recognize language that is appropriate for standard written English; and Vocabulary and Reading Comprehension, that measures the ability to understand nontechnical reading materials. The two-hour test contains 150 items and generates scores that range from 200 to 677. The Educational Testing Service administers the test, in cooperation with the College Board and the Graduate Record Examination Board.

More than 2,500 colleges and universities in the United States and Canada, as well as in other countries where English is the language of instruction, require TOEFL test results of both graduate and undergraduate applicants for whom English is not their native language and whose last three years of instruction were not in English. California's public universities are among those colleges who require these test results to accompany applications for admission. No specified passing score exists for the TOEFL. Each institution requiring these scores determines its own levels of acceptable performance and these often vary depending on such factors as field of study, level of study (graduate or undergraduate), teaching assistantships or fellowships, and whether the institution provides ESL or EFL courses. In general, a total TOEFL score of 600 or above is considered excellent and a score below 400 is regarded as weak.

Participation and performance

The Test of English as a Foreign Language was taken 578,722 times in 1988-89. National and California average scores are not available for TOEFL, nor are other data available about either the number of tests administered in California or the number of test takers requesting that their scores be sent to California institutions.

According to the TOEFL Test and Score Manual analysis of twelve forms of the TOEFL administered between December 1984 and February 1986 gener-

ated a mean standard error of measurement of 14.1 points for the total score. If an individual repeatedly took various forms of the TOEFL, nine times out of ten his/her score could be expected to vary by as much as ± 28.2 points. Thus, scores of two individuals would need to differ by more than this amount before one could conclude any real difference existed in their English proficiency as measured by this test.

Predictive validity

For the TOEFL, the issue of validity relates to how well the test measures a person's proficiency or ability to function or perform using English. The Manual summarizes a number of predictive validity studies of TOEFL using a wide range of criterion or outcome variables. One series of studies examined the correlations between TOEFL scores and scores on other English proficiency tests; the correlations ranged from .79 to .89. Another set of studies correlated faculty ratings of students' English proficiency with TOEFL scores and yielded correlations with a range of .76 to .87. In another study which compared TOEFL performance with ratings of actual writing, a correlation of .78 was found between TOEFL scores and average ratings of writing quality on four essays. Other studies have been conducted that examine the relationship between TOEFL and some widely used aptitude tests. For nonnative speakers of English, the correlation between TOEFL scores and SAT Verbal scores was .77, between TOEFL and GRE Verbal was .78 and between TOEFL and GMAT Verbal was .71. The TOEFL test does systematically measure some of the skills in English that are considered important for success in collegiate institutions in this country but, as is the case with most standardized examinations, its scope is limited and its ability to predict subsequent performance is imperfect.

2 Tests Used by Graduate Programs and Professional Schools

PART TWO of this report reviews major standardized tests used for admission or placement in graduate programs or professional schools. The organization of information about each test parallels that used for the undergraduate tests. For each test, the report describes the nature and purpose of the test, presents data on participation and performance by sex and ethnic group over the last five years to the extent that data are provided by the test's sponsor, and presents available data on the test's standard error of measurement and predictive validity.

A cautionary note regarding predictive validity is in order. Because of the selective nature of most graduate programs and professional schools, very little variation exists among graduate students' undergraduate grades and test scores and even less exists among their graduate level grade-point averages. This limitation of the range of variability among test takers in their background characteristics is technically known as "restriction of range." When restriction of range exists, the ability of a predictor variable to explain variation in outcome measures is quite limited. In real terms, when all of the entering students have high test scores and grade-point averages, the characteristics that differentiate an outstanding graduate student from a mediocre one probably lie in an entirely different realm.

Graduate Record Examinations

The Graduate Record Examinations (GRE) consist of a General Test and 15 Subject Tests. The GRE General Test is an aptitude test designed to measure certain developed verbal, quantitative, and analytical abilities through seven 30-minute tests. Verbal, Quantitative, and Analytic scores are reported that have ranges from 200 to 800. The Subject Tests are achievement tests designed to measure subject matter knowledge and understanding acquired in an undergraduate program as preparation for graduate study. Each Subject Test takes two hours and 50 minutes. The ranges of scores on the Subject Tests varies from test to test but 200 is the minimum and 990 is the maximum possible score.

These tests are used by graduate schools and departments for admission, placement, and fellowships, and by fellowship donors for appraisal of prospective recipients of their awards. The use of the scores varies from campus to campus, from department to department. Within the University of California, no campus or department has published cut-off scores. At the departmental level, some pay little attention to GRE scores, while others emphasize different portions of the test in admission decisions.

Participation and performance

In 1988-89, 366,077 individuals took GRE tests nationwide, an increase of 15 percent over the previous year. In California, 29,865 individuals took the GRE tests, an increase of 2 percent over 1987-88. While more detailed information about differential participation and performance on the GRE among California test takers is not available, a soon to be published report by the Educational Testing Service does provide considerable information about these test takers nationwide. Of those individuals who took GRE tests nationwide in 1987-88, 221,638 were United States citizens for whom general test score information and demographic information were available.

As shown in Display 21 on page 20, overall, a larger proportion of women than men take the GRE General Test and this proportion has increased over the last ten years. While participation in the GRE has increased among members of all ethnic subgroups, the largest rates of increase have occurred among Asian and Hispanic test takers. The small increase for Black test takers is solely the result of more Black women taking the GRE; their increase masks an actual decline in GRE participation by Black males. Despite these gains by ethnic groups underrepresented in graduate education, 86 percent of all GRE participants continue to be White test takers.

DISPLAY 21 Participation of United States Citizens in Graduate Record Examinations, 1977-78 and 1987-88

Category	1977-78		1987-88		Percent	Scores in 1987-8		
	Number	Percent	Number	Percent	Change	Verbal	Quantitative	Analytic
Total	188,309		197,686			508	537	542
Men	87,309	46.3	95,142	42.9	9.0	519	583	557
Women	101,219	53.7	126,496	57.1	25.0	499	502	531
Asian	2,686	1.5	6,133	3.0	128.3	480	612	539.
Black	12,551	6.9	12,592	6.2	0.3	391	394	406
American Indian	917	0.5	1,000	0.5	9.1	464	470	485
Hispanic/Latino	4,806	2.7	7,158	3.5	48.9	440	470	461
Other	4,583	2.5	2,527	1.2	-44.9	528	549	542
White	155,793	85.9	173,674	85.5	11.5	520	546	557

Source: California Postsecondary Education Commission.

Just as was the case for undergraduate standardized tests, mean performance varied considerably among ethnic groups. The difference between the mean scores of the group with the highest scores and those with the lowest scores exceeded the standard deviation of the overall mean. The lack of historical data on GRE scores disallowed determination of whether any changes in relative performance level have occurred over time.

The 1988-89 GRE Guide presented estimates of the standard error of measurement on the Verbal measure as 34, on the Quantitative measure as 37, and on the Analytic measure as 45. About 95 percent of the time, individuals will have scores within two standard errors of their true score. Thus, examinees can be expected to obtain scores on the Verbal measure within 68 points of their true score, within 74 points of their true score on the Quantitative measure, and within 90 points of their true score on the Analytical measure. When comparing scores of two individuals, the size of the difference in their score must be even greater than these differences before one could conclude any real difference exists between the two test takers as measured by the GRE.

Predictive validity

The GRE General Test and/or Subject Area Test scores are useful for admission decision making if they are meaningful indicators of students' likelihood of success in graduate programs. The Validity of the GRE: 1988-89 Summary Report (in press) presented predictive validity correlations of first year grade-point averages in graduate programs with GRE General Test scores and undergraduate grade-point averages. The predictive validity correlation of undergraduate grades with first-year graduate program grades was .34 while the GRE composite scores had a correlation of .33 with first-year grades. When undergraduate grades and GRE composite scores are used together, the predictive validity correlation increases to .43. While either undergraduate grades or the GRE composite score explains about 11 percent of the variation in first-year graduate programs grades, they explain about 18 percent of variance when used together.

Another analysis examined the predictive validity of eight Subject Area tests. In all cases except Geology, the predictive validity correlations of subject area scores and undergraduate grades with first-year graduate grades were greater than or equal to the correlations when the GRE composite score was substituted for the Subject Area score. While the predictive validity correlations are the largest when all three indicators are used, only in the case of Geology does the addition of the GRE composite scores to undergraduate grades and Subject Area test

scores increase the proportion of the variance explained by as much as 1 percentage point.

Graduate Management Admission Test

The Graduate Management Admission Test is an aptitude test that measures general verbal and mathematical skills that are associated with success in the first year of study at graduate schools of management. The test does not examine knowledge obtained in college course work or any particular subject area. It consists of seven separately timed sections of multiple choice questions. Test takers receive separate verbal and quantitative scores that have ranges from 0 to 60 and a total mean score that has a range from 200 to 800.

The GMAT scores are used by many graduate schools of management in California as one component in their admission procedures. The GMAT General Bulletin reiterates that use of the test results as a sole or pivotal basis for admission is inappropriate because of its known limitations: (1) it cannot and does not measure all the qualities important for graduate study in management and other pursuits, whether in education, career, or other areas of experience; (2) there are psychometric limitations to the test -- for example, only score differences of certain magnitudes are reliable indicators of real differences in performance (GMAT 1988-89 Bulletin of Information, p.33).

Participation and performance

Nationally, 221,455 GMAT tests were taken in 1988-89, a 4 percent increase over the previous year. In California, GMAT test taking increased by 3 percent to 17,388 in 1988-89. Display 22 below presents participation and performance data for the GMAT nationally and in California for the three years these data were available.

Display 23 on page 22 shows that total mean GMAT scores increased over the last three years. California test takers have consistently earned higher scores than GMAT test takers nationally. All of the improvement in the mean scores is the result of higher scores earned by men. Scores for women actually declined slightly over this period as Display 24 indicates. While both men and women in California score above the national average, California men actually increased their relative advantage over the last three years while California women's advantage decreased slightly. While women's representation among undergraduate admission examination takers is nearly equivalent to their representation in their high school class -- 51 to 52 percent -- women comprise only 37 percent of the GMAT test takers both nationally and in California.

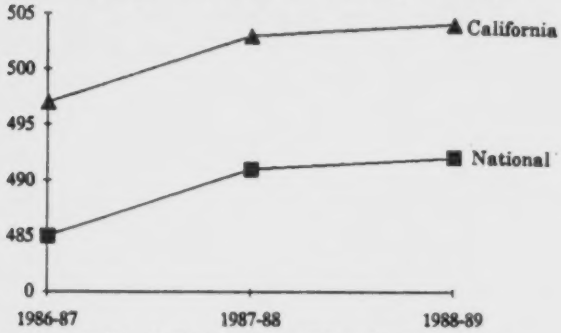
DISPLAY 22 Participation and Total Scores of Test Takers on the GMAT Nationally and in California by Sex and Ethnicity, 1986-87 Through 1988-89

	Participation						Composite Score					
	National			California			National			California		
Category	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89
Total *	197,793	212,380	221,455	16,049	16,916	17,388	485	491	492	497	503	504
Men	125,182	134,595	140,334	9,919	10,549	10,776	489	498	502	502	512	516
Women	72,419	77,624	80,773	6,114	6,352	6,602	477	477	475	488	488	484
Asian	3,860	5,143	5,809	1,253	1,643	1,751	488	493	493	489	501	498
Black	7,926	9,642	9,969	518	667	657	383	389	391	408	417	423
American Indian	430	2,654	3,838	55	158	224	463	458	464	483	476	490
Hispanic/Latino	2,164	2,714	2,764	407	492	512	429	437	439	461	467	470
White	115,753	120,775	120,143	9,023	9,168	8,954	503	508	511	525	531	534

* Subgroups do not add to total because of nonresponse, non-citizenship, or missing data.

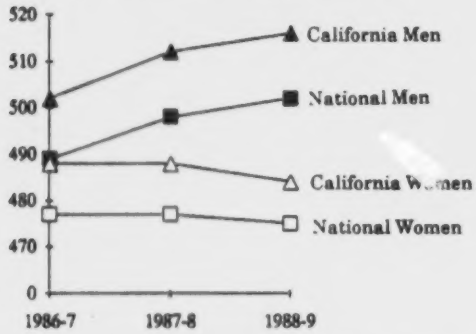
Source: Graduate Management Admission Council, Statistical Print-outs, 1987, 1988, and 1989.

DISPLAY 23 Total GMAT Scores Nationally and in California, 1986-87 Through 1988-89



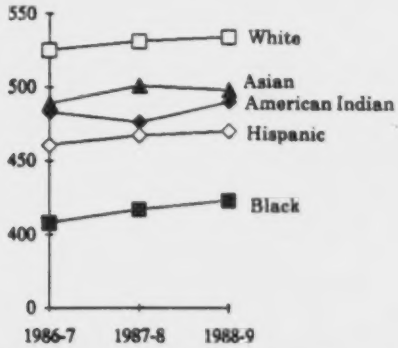
Source: California Postsecondary Education Commission.

DISPLAY 24 Total Mean Scores on GMAT Nationally and in California for Men and Women, 1986-87 Through 1988-89



Source: California Postsecondary Education Commission.

DISPLAY 25 Total Mean Scores on GMAT in California by Ethnicity, 1986-87 Through 1988-89



Source: California Postsecondary Education Commission.

Mean GMAT scores differ across ethnic groups in California by more than 100 points, as Display 25 indicates. However, the gap narrowed somewhat (by six points) over the three years reported even as participation of students from ethnic minority populations was increasing. Nevertheless, White test takers still comprised 74 percent of the GMAT test takers in California in 1988-89.

The Technical Report on Test Development and Score Interpretation for GMAT Users (1986) summarizes data on the standard error of measurement for this test. The mean standard error for the total GMAT score is 26.5 points while for the verbal and quantitative scores, the standard errors are 3 points on each.

Predictive validity

Examinations of predictive validity of the GMAT have focused on the correlation of first-year graduate program grade-point average with GMAT verbal and quantitative scores and undergraduate grade-point average. The 123 studies of GMAT predictive validity conducted between 1981 and 1984 yield a mean predictive validity correlation of .25 between first-year program grades and undergraduate grade-point averages and a multiple correlation of .41 between first-year grades and the combination of undergraduate grades and GMAT verbal and quantitative scores. Thus, the proportion of variation in first-year grades that can be explained increases from 7 percent using undergraduate grades alone to 17 percent when GMAT results are added.

Law School Admission Test

The Law School Admission Test (LSAT) is an aptitude test designed to measure the general aptitude or ability to read, understand, and reason. The test covers a range of academic disciplines and is designed to give no advantage to test takers who have studied a specific discipline. The LSAT is intended as a supplement to the undergraduate record and other information for use by law schools when assessing the academic potential of applicants for law school work.

The half-day test consists of five 35-minute sections. Four sections have a multiple choice question for-

mat and include a pre-test section, and sections on analytic reasoning, logical reasoning, and reading comprehension. An unscored thirty-minute writing sample is also a required part of the test. The scaled scores range from 10 to 48.

Participation and performance

Nationally, 121,978 people took the LSAT in 1988-89, a 27 percent increase over 1987-88. While a substantial increase has occurred in LSAT participation over the past five years, year-to-year levels of participation fluctuate considerably as illustrated in Display 26 below. California participation data have been reported for the last four years. Participation in the LSAT included a dramatic 57 percent increase over last year, for a total of 13,394 test takers in 1988-89. However, fluctuations in participation in California parallel the national pattern and show a 42 percent increase over the last four years.

In 1988-89, approximately 44 percent of the LSAT test takers nationwide were women, representing a 2 percent increase in female participation over the past five years. In California, women comprised 46 percent of the test-taking pool, and they have increased their representation by nearly 3 percentage points since 1985-86.

In 1988-89, 83 percent of all LSAT test takers nationally were White candidates -- about a 1 percentage point decrease over five years ago. Asian representation had increased by 2 percentage points to 4.2 percent. While 1988-89 Black representation of 7.5 percent was about average for the period, Hispanic representation was fairly stable at about 5 percent.

Over the last four years, the representation of White test takers had decreased 1.5 percentage points to 73.4 percent of all LSAT takers in California. Asian representation increased 3 percentage points to 9.4 percent and Hispanic representation increased by 1.1 percentage points to 9.1 percent while Black representation was quite stable at about 7 percent.

Differential performance data, included in Display 26, was provided for the first time in 1988-89. The mean national score on the LSAT was 30.0 while the

DISPLAY 26 Participation in Law School Admissions Tests Nationally and in California by Sex and Ethnicity, 1984-85 Through 1988-89

Category	Number					Percent					Mean Score
National	1984-85	1985-86	1986-87	1987-88	1988-89	1984-85	1985-86	1986-87	1987-88	1988-89	1988-89
Total*	99,173	81,810	101,244	96,203	121,978						30.0
Men	57,739	49,086	57,297	53,776	68,358	58.2	60.0	56.6	55.9	56.1	N.R.
Women	41,434	32,724	43,947	42,427	53,470	41.8	40.0	43.4	44.1	43.9	N.R.
Asian	2,207	2,165	2,978	3,015	4,839	2.2	2.5	3.0	3.3	4.2	N.R.
Black	6,905	6,791	7,573	6,736	8,599	7.0	7.7	7.6	7.3	7.5	N.R.
American Indian	564	518	543	468	602	0.6	0.6	0.5	0.5	0.5	N.R.
Hispanic/Latino	4,529	4,572	4,977	4,248	5,668	4.6	5.2	5.0	4.6	5.0	N.R.
Other	1,787	435	1,831	1,042	108	1.8	0.5	1.8	1.1	0.1	N.R.
White	82,662	73,441	82,373	76,300	94,470	83.8	83.5	82.1	83.1	82.7	N.R.
California											
Total*	N.R.	9,413	10,090	8,528	13,394						30.3
Men	N.R.	4,591	5,528	4,641	7,220		56.8	54.8	54.4	54.0	30.5
Women	N.R.	3,496	4,562	3,887	6,159		43.2	45.2	45.6	46.0	30.0
Asian	N.R.	521	771	680	1,156		6.4	7.7	8.4	9.4	29.7
Black	N.R.	542	733	580	881		6.7	7.3	7.2	7.2	22.4
American Indian	N.R.	70	86	71	110		0.9	0.9	0.9	0.9	27.8
Hispanic/Latino	N.R.	647	860	658	1,117		8.0	8.6	8.2	9.1	26.3
Other	N.R.	247	308	89	15		3.1	3.1	1.1	0.1	25.9
White	N.R.	6,060	7,235	5,990	9,027		74.9	72.4	74.2	73.4	32.0

* Subgroups do not add to total because of nonresponse, noncitizenship, or missing data.
N.R. = Not Reported.
Source: California Postsecondary Education Commission.

mean score for California test takers was 30.2. Differential scores for men and women and for major ethnic groups were available for California test takers only. The mean LSAT score for men of 30.5 was slightly greater than the women's mean score of 30.0. As has been the case for all of the standardized tests included in this report, substantial differences in mean scores occurred for test takers from the major ethnic groups. The range of these scores in 1988-89 was 32.0 for White test takers to 22.4 for Black test takers. Because no recent historical data on mean performance levels of test takers in California or nationally has been provided, it is not possible to determine if any changes have occurred in the relative performance of candidates from the various ethnic groups.

The 1988-89 LSAC/LSAS Desk Book estimates that the standard error of measurement for a LSAT score is 2 points on the 10 to 48 scale. Thus, nine times out of ten, a test taker's score could vary by 4 points without indicating any change in the test taker's abilities as measured by the LSAT. When comparing the scores of two candidates, the difference between their scores should exceed five before it could be concluded any real difference existed between their abilities as measured by the LSAT.

Predictive validity

The relationship between performance on the LSAT and performance in law school varies from law school to law school. The Law School Admission Services' most recent report to the Commission provided summary information on recent studies of the predictive validity of the LSAT results conducted at 156 of its member law schools. The range of correlations between LSAT scores and first-year law school grades was .19 to .64. When undergraduate grades were added to the LSAT scores, the range of the correlations increased to .28 to .69.

Information on the predictive validity of the LSAT for different subgroups of test takers in this report is based on a 1976 research study, Subgroup Validity Study, LSAC-76-6. The most striking fact from this research is that undergraduate grades have a very low correlation with first-year law school performance for Black and Hispanic candidates. While LSAT results for these test takers have higher correlations with first-year law school grades than do their undergraduate grades, the degree of correlation between first-year law school grades and LSAT results either alone or in concert with grades is lower for these students than for White and Asian students. However, predictive validity findings in a 1977 LSAC research report 77-3 found correlations between first-year law school grades and LSAT scores alone or in concert with undergraduate grades are higher for Blacks and Hispanics than for Whites or Asians. Differential predictive validity of the LSAT is the focus of research currently underway and that data will be included in the Commission's 1992 report.

Medical College Admission Test

The Medical College Admission Test (MCAT) is a standardized multiple-choice test designed to evaluate understanding of concepts and principles in biology, chemistry, and physics identified by the Association of American Medical Colleges as prerequisite to the study of medicine. It is difficult to classify the MCAT because it assesses knowledge of concepts and principles covered in first-year introductory science courses and as such is an achievement test. It is also an aptitude test because it attempts to assess basic analytic abilities in the context of medically relevant problems and data. The MCAT provides six scores -- one each in Biology, Chemistry, Physics, Science Problems, Skills Analysis: Reading, and Skills Analysis: Quantitative. Scores range from 1 to 15.

The MCAT was designed to assist medical college admission committees in identifying applicants who will perform adequately in the medical school curriculum. The scores are intended for use in combination with a wide variety of preadmission data for applicants. While the extent and nature of the use of MCAT results varies from one California medical school to another, they are considered in conjunction with undergraduate grades and course work, undergraduate institution, recommendations of applicants' health profession advisors, and personal interviews.

Participation and performance

In 1988, 34,167 MCAT tests were taken nationally -- a 3 percent decrease from the previous year, as Display 27 below shows. In California, 3,500 test tak-

ers completed the MCAT-- a 2 percent increase in participation. Since 1985, California has increased its representation among national test takers by 1 percentage point to 10.2 percent.

No breakdown of California test takers by sex or racial/ethnic group is available. Nationally, however, women comprised 41.7 percent of the MCAT test takers in 1988 having increased their representation by more than 10 percentage points over the last four years. Over this same period, the representation of White test takers declined from 74.5 percent to 69.7 percent. The greatest increase in representation occurred for Asian/Pacific Islander test takers, who expanded their proportion to 14.7 percent -- a growth of 4.3 percentage points. Black representation increased from 7.9 percent to 8.2 percent while the representation of Mexican American/Chicano test takers changed from 1.7 percent to 1.9 percent.

As illustrated by Display 28 on page 26, California test takers have consistently earned higher MCAT scores than the national average. However, since 1985, mean test scores have declined, and the rate of decline has been greater for California scores than for the national scores.

Although separate mean test scores for men and women and for racial/ethnic subgroups are not available for California, nationally women tend to earn slightly lower scores than men, and mean scores in each test area for Black test takers are more than two full points below those for White and Asian/Pacific Islander test takers.

The standard errors for measurement for the MCAT tests range from .87 in Chemistry to 1.0 in Reading Skills on the scale of 1 to 15. Thus, if an individual repeatedly took the MCAT, 95 percent of the times the test taker's scores could fluctuate as much as 2 points without indicating any real change in abilities as measured by this test.

Predictive validity

The correlations between first-year medical school grades and MCAT test scores range from .26 for Reading Skills to .42 for Chemistry. The combined correlation of all area tests with first-year medical college grades is .41, while their correlation with second-year medical college grades is .37. Variations in MCAT scores explain about 18 percent of the variation in first-year medical college grades and about 10 percent of the variation in second-year medical college grades.

California Basic Educational Skills Test

This report contains the first presentation of information about the California Basic Educational Skills Test (CBEST) to appear in this series. When the test-

DISPLAY 27 Medical College Admission Test Participation Nationally by Sex and Ethnic Group, and Overall in California, 1985, 1987, and 1988

Category	Participation			Participation Rate		
	1985	1987	1988	1985	1987	1988
National	42,432	35,204	34,167			
Men	25,866	20,829	19,930	69.0	59.2	58.3
Women	16,566	14,375	14,237	31.0	40.8	41.7
Asian	4,412	4,753	5,012	10.4	13.5	14.7
Black	3,335	2,966	2,818	7.9	8.4	8.2
Hispanic/Mexican American	719	599	660	1.7	1.7	1.9
Hispanic, Other	2,165	1,844	1,681	5.1	5.3	5.0
American Indian	176	176	177	0.4	0.5	0.5
White	31,625	24,866	23,819	74.5	70.6	69.7
California	3,885	3,420	3,500	9.2	9.7	10.2

Source: Medical College Admission Test, Summary of Score Distributions, 1985, 1987, 1988.

DISPLAY 28 Medical College Admission Test Performance by Test Area, Nationally by Sex and Ethnic Group, and Overall in California, 1985, 1987, and 1988

	Biology			Chemistry			Physics		
	1985	1987	1988	1985	1987	1988	1985	1987	1988
National	8.16	8.08	8.09	8.02	7.82	7.75	8.04	7.84	7.82
Men	8.38	8.31	8.35	8.33	8.12	8.06	8.52	7.20	8.27
Women	7.82	7.75	7.73	7.54	7.40	7.32	7.30	8.28	7.18
Asian	8.48	8.52	8.55	8.85	8.74	8.57	8.92	8.75	8.69
Black	5.92	6.06	6.11	5.92	5.88	5.82	5.68	5.74	5.65
Hispanic, Mex. Amer.	7.45	7.52	7.59	6.98	6.81	6.82	6.90	6.76	6.79
Hispanic, Other	6.47	6.54	6.70	6.44	6.35	6.41	6.24	6.17	6.31
American Indian	6.93	7.05	7.25	6.68	6.61	6.77	6.71	6.66	6.97
White	8.49	8.37	8.35	8.27	8.02	7.94	8.32	8.07	8.03
California	9.26	9.07	9.15	9.19	8.86	8.87	9.15	8.84	8.84

	Science Problems			Reading Skill			Quantitative Skill		
	1985	1987	1988	1985	1987	1988	1985	1987	1988
National	7.93	7.75	7.77	7.75	7.52	7.55	7.55	7.51	7.34
Men	8.29	8.07	8.10	7.73	7.54	7.55	7.87	7.80	7.68
Women	7.38	7.27	7.30	7.78	7.48	7.55	7.05	7.08	6.87
Asian	8.61	8.49	8.51	7.35	7.14	7.08	7.74	7.72	7.45
Black	5.63	5.69	5.69	5.20	5.09	5.25	4.82	5.08	4.85
Hispanic, Mex. Amer.	6.93	6.78	6.87	6.78	6.54	6.70	6.35	6.28	6.19
Hispanic, Other	6.18	6.08	6.30	5.08	5.04	5.32	5.20	5.35	5.27
American Indian	6.63	6.68	6.93	6.94	6.86	7.28	6.57	6.67	6.70
White	8.23	8.00	7.99	8.29	8.09	8.10	8.00	7.95	7.80
California	9.08	8.74	8.86	8.11	7.62	7.62	8.15	7.93	7.75

Source: Medical College Admission Test, Summary of Score Distributions, 1985, 1987, and 1988.

ing legislation was passed in 1985, CBEST was a very new test, and its use, according to its enabling legislation, was as a requirement for issuance of a first teaching or service credential. Thus, staff of the Commission on Teacher Credentialing and the Postsecondary Education Commission agreed that its use did not fit the description in the testing legislation as an instrument used for admission or placement in postsecondary education in California. Now, however, Education Code Section 44252 requires that the applicants to approved teacher preparation programs in California must take the CBEST for diagnostic purposes prior to application for admission. Thirty-nine percent of those taking CBEST in 1988-89 indicated that their reason for taking the test was for admission to a professional preparation program. For these reasons, CBEST should be included in this report and the sponsors of the test should be requested to comply with the Education Code Sections 99152 to 99155. The information on CBEST in this report is drawn from the October 1989-August 1990 *California Basic Educational Skills Test Information Bulletin* and *The California Basic Educational Skills Test: Annual Report of Examination Results*, prepared by the Commission on Teacher Credentialing in September 1989.

The purpose of the CBEST is to provide a general measure of basic proficiency in reading, writing, and mathematics. The test consists of a reading section (65 minutes) which includes the skill areas of literal, inferential, and critical comprehension; a mathematics section (70 minutes) which covers the process used in problem solving, solutions of applied problems, and mathematical concepts and relationships, and a writing section (60 minutes) in which test takers must complete short essays on two topics.

In order to pass the CBEST, a test taker must earn at least a minimum scaled score of 41 on each section.

Test takers may retake any section of the test that they fail for as many times as they need to pass. The summary of statistical information presented in Display 29 below focuses on passing rates

Participation and performance

In 1988-89, 40,627 individuals took CBEST for the first time. While this was a 2.6 percent increase over 1987-88, it was 5 percent lower than the number who took the test in 1985-86. In fact, participation in the last two years is 11 percent lower than the two-year period, 1985-87. Approximately 70 percent of the test takers are women and 30 percent are men. While Hispanic participation increased by 1.6 percentage points and White participation and other unidentified ethnic group participation declined somewhat, Asian and Black participation was quite stable over the four-year period. However, White test takers continue to comprise approximately 80 percent of the CBEST test population and the participation of test takers from other ethnic subgroups is far below their representation in the population.

Passing rates for men and women are quite comparable, 74 percent and 73 percent, respectively. Variations in passing rates among test takers of different ethnic groups is substantial. While passing rates for Black and Hispanic test takers increased between 1985-86 and 1987-88, passing rates for these two groups dropped back to near their 1985-86 levels in the current year. Thirty-five percent of the Black first-time test takers and 51 percent of the Hispanic test takers passed the CBEST in 1988-89. The passing rate for Asian test takers has been quite stable at 62 percent while the passing rate for White test takers has declined from 82 to 80 percent over the four-year period. Because of the nature of the CTC report, information about average scores, standard deviations, standard errors of measurement, and predictive validity of the CBEST are not available at this time. Through the cooperation of the test administrators, the Educational Testing Service, this information may be available for future reports.

DISPLAY 29 CBEST Participation and Passing Rates for First-Time Examinees by Ethnicity, 1985-86 Through 1988-89

Category	1985-86		1986-87		1987-88		1988-89	
	Number	% Pass	Number	% Pass	Number	% Pass	Number	% Pass
Total	42,774	75	47,114	75	39,586	75	40,627	74
Asian	1,125	62	1,257	61	1,012	62	1,133	62
	2.8		2.8		2.8		3.0	
Black	1,997	36	2,111	34	1,532	41	1,764	35
	4.9		4.7		4.2		4.7	
Mexican American	1,759	50	1,961	59	2,293	56	2,036	51
	4.3		4.3		6.3		5.4	
Other Hispanic/Latino	754	48	833	51	1,482	62	954	50
	1.9		1.8		4.1		2.5	
Other	1,421	49	2,076	54	1,908	76	994	61
	3.5		4.6		5.2		2.6	
White	33,563	82	37,088	81	28,124	80	30,801	80
	82.6		81.8		77.4		81.7	

Source: California Commission on Teacher Credentialing, The California Basic Education Skills Annual Report of Examination Results, September 1989.

3 Review of Selected Issues Related to Standardized Admissions Tests

THE 1989 amendments to the statutes on reporting on standardized tests expanded the Commission's reporting responsibilities to include: specific recommendations on (1) methods to remove the inappropriate obstacles that standardized college admissions tests may provide in precluding some students from obtaining regular admission to public colleges and universities and (2) strategies to involve the testing companies in cooperative actions with schools, colleges, and universities to expand access to college for Hispanic, Black, and American Indian students.

Even these rather narrow issues are quite complex and are interrelated with the entire array of issues and concerns the Commission has identified in its educational equity work. The first two parts of this report sought to present the role of testing as designed by test sponsors and the impact of such testing in a normative sense only. This part of the report seeks to clarify the meaning of this language so that existing pertinent information can be reviewed, the need for additional information can be identified, and alternative methods and strategies discussed.

Standardized tests and regular admission

In its report on the eligibility of California's 1986 high school graduates, the Commission examined the nature of graduates' pre-collegiate preparation and test-taking behavior and performance in light of the regular admission requirements for the University of California and the California State University. The study verified that the proportion of Black and Hispanic students who qualify for regular admission to the State's public universities is significantly below that of White and Asian students. The study also provided information on differential performance of students from the four major ethnic subgroups relative to the various components of admission requirements -- course pattern, grades, and test scores.

University of California requirements

As Display 30 on page 30 indicates, the most significant barrier preventing Black and Hispanic graduates from qualifying for the University of California is failure to enroll and complete the University's "a-f" course requirements. Only 9.4 percent of all Black graduates and 12.3 percent of all Hispanic graduates finish high school with most or all of the required courses compared to 25.7 percent of White graduates and 50.9 percent of Asian graduates.

The University also has test score and grade-point average requirements. As Display 31 illustrates, among these pools of graduates who have the semblance of the required coursework preparation, 51 percent of the Hispanic graduates are ineligible because they are missing a few "a-f" courses or they have grades below "C" in some "a-f" courses. Approximately 37 percent of these Black graduates are ineligible on this basis while 32 percent of the White graduates and 30 percent of the Asian graduates are disqualified on this basis.

Conversely, Black graduates with the required course work are twice as likely as White graduates with this background to be ineligible because their high school grade-point averages were below the minimum accepted level of 2.78. Hispanic and Asian graduates with the required course work were less likely than White graduates to be disqualified because their grade point average was below 2.78.

Graduates who earn grade-point averages of 3.3 or more in their "a-f" courses are eligible for the University regardless of test scores. Among Hispanic graduates who had taken most or all of the required "a-f" courses, 29 percent earned grade-point averages of 3.3 or more compared to 38 percent of the Black graduates, 47 percent of the White graduates,

*DISPLAY 30 Percentage Distribution of 1986 Public High School Graduates by Completion of Required "a-f" Curriculum for the University of California by Ethnic Group, Fall 1986**

Criteria	Asian	Black	Hispanic/Latino	White
Completed all or most "a-f" courses	50.9	9.4	12.3	25.7
Major course, grades, and other deficiencies	49.1	90.6	87.7	74.3

*The category of qualifying by test results alone was not included in this table because application of the category was not uniform.

Source: California Postsecondary Education Commission, 1988.

*DISPLAY 31 Percentage Distribution of 1986 Public High School Graduates Who Had Completed All or Most "a-f" Courses by Category of Eligibility for Regular Admission to the University of California, by Ethnic Group, Fall 1986**

Eligibility Criteria	Asian	Black	Hispanic/Latino	White
Eligible: GPA in "a-f" courses of 3.3 or more	50.9	37.8	29.4	47.2
Eligible: GPA in "a-f" courses of 2.78 to 3.29 and qualifying test scores	11.1	8.9	9.2	10.7
Eligibility indeterminate: GPA of 2.78 to 3.29 but no test scores	1.9	3.3	1.7	1.3
Ineligible: GPA in "a-f" courses of 2.78 to 3.29 but disqualified by test scores	5.2	5.6	5.9	4.7
Ineligible: GPA below 2.78 in "a-f" courses	1.3	7.7	2.5	3.9
Ineligible: Minor "a-f" course and grade deficiencies	29.6	36.7	51.3	32.2

* The category of qualifying by test results alone was not included in this table because application of the category was not uniform.

Source: California Postsecondary Education Commission, 1988.

and 51 percent of the Asian graduates so prepared.

Test scores become critical in qualifying for regular admission to the University for students who have completed the "a-f" course requirements and who have grade-point averages between 2.78 and 3.3. Black graduates in this category were more likely than other graduates to have not taken the required tests. While 92 percent of White graduates and 90 percent of Asian and Hispanic graduates, respectively, in this category, had taken the required tests, 81 percent of the Black graduates with the course work and grades between 2.78 and 3.3 took the SAT or ACT needed to qualify for regular admission. Among the students who had taken the required tests, 68 percent of the Asian graduates, 69 percent of the White graduates, and 61 percent of the Hispanic and Black graduates qualified for regular admission as a result of earning a qualifying score on the SAT or the ACT tests.

Staggering differences exist in the proportions of high school graduates from different racial/ethnic groups that complete all or most of the University of California's required preparatory curriculum. Among those graduates who have completed the re-

quired courses, Black and Hispanic graduates are more likely to have minor course and grade deficiencies that make them ineligible for regular admission. They are also less likely to have earned grade-point averages above 3.3 -- which would have made them eligible regardless of their standardized test scores. Among graduates for whom test scores are required to qualify for regular admission -- those with "a-f" grade-point averages between 2.78 and 3.3 -- Black graduates are less likely than other graduates to take the tests. While Black and Hispanic graduates who do take the required tests are somewhat less likely to qualify for regular admission than are White and Asian graduates, the differential rates of successfuly qualifying among subgroups are much smaller than those that exist in the other categories of eligibility. This information reinforces the hypothesis that if students have more similar experiences in terms of the nature of their high school curriculum and their grade-point achievement, disparities among subgroups' eligibility for regular admission at the University of California would be greatly dissipated.

California State University requirements

The regular admission requirements for the California State University also include course requirements, grades, and test results. In 1986, the State University required the completion of at least five of six year-long courses in English and mathematics for applicants to qualify for regular admission. As Display 32 below illustrates, failure to complete the required courses was the primary barrier for Hispanic graduates to qualify for regular admission to the State University. Of all Hispanic high school graduates, 44 percent had failed to complete the required course work in English and mathematics while 34 percent of all White graduates, 31 percent of all Black graduates, and 26 percent of all Asian graduates were ineligible on this basis. Most of these graduates also had not taken any standardized admission test.

The single greatest barrier for Black graduates to qualify for regular admission was failure to earn grade-point averages at or above 2.0. Among Black high school graduates, 32 percent had high school grade-point averages below 2.0 while 22 percent of Hispanic graduates, 14 percent of White graduates and 6 percent of Asian graduates earned grade-point averages below 2.0.

Test scores were irrelevant to eligibility determinations for graduates who completed the required courses and earned grade-point averages above 3.1. Nearly 40 percent of all Asian graduates in the State qualified for regular admission to the State University by virtue of completing the required courses and earning grade-point averages over 3.1 compared to 21 percent of White graduates, 10 per-

DISPLAY 32 Percentage Distribution of 1986 Public High School Graduates by Category of Eligibility for Regular Admission to the California State University, by Ethnic Group, Fall 1986

Eligibility Status	Asian	Black	Hispanic/Latino	White
Eligible: GPA above 3.1 with courses	39.3	5.7	10.0	21.4
Eligible: GPA between 2.0 and 3.1 with courses and qualifying test scores	10.7	5.1	3.3	10.2
Eligibility Indeterminate: GPA between 2.0 and 3.1 with courses but no test scores	6.3	9.4	11.1	12.1
Ineligible: GPA between 2.0 and 3.1 with courses but disqualified by test scores	12.3	17.4	8.9	8.4
Ineligible: GPA 2.0 or more without courses or tests	25.6	30.8	44.4	33.8
Ineligible: GPA below 2.0	5.8	31.6	22.3	14.1

Source: California Postsecondary Education Commission, 1986 Eligibility Study.

cent of Hispanic graduates, and 6 percent of Black graduates.

Test scores are pivotal in determining eligibility for less than 30 percent of the high school graduating class -- those graduates who have completed the required courses and who have grade-point averages between 2.0 and 3.1 inclusive. Among graduates with these qualifications, Hispanic graduates are the least likely to have taken the required test; 52 percent completed the required tests compared to 61 percent of White graduates, 70 percent of the Black graduates, and 78 percent of the Asian graduates with these qualifications.

Of graduates with these qualifications who did take the required tests, Black graduates were the least likely to qualify on the basis of their test scores. Approximately 23 percent of Black test takers with the required course work and grade-point averages between 2.0 and 3.1 qualified for regular admission to the State University compared to 27 percent of Hispanic test takers, 47 percent of Asian test takers, and 55 percent of White test takers in this category.

The pattern of differences among high school graduates from different racial/ethnic subgroups in qualifying for regular admission at the State University is similar to that at the University. Taking the required courses and earning qualifying grades are the greatest barriers for Black and Hispanic graduates. However, substantial disparities also exist among graduates from different subgroups in successfully qualifying for regular admission on the basis of standardized test scores. The data are insufficient to determine the reasons for these continued large disparities among subgroups. It may be related to the fact that qualifying grade-point averages are not based on the required curriculum but instead on all course work. It may be that the range of qualifying grades is so broad that it encompasses a a large number of students whose life goals are loosely related to continued educational achievement. It may be that the relation between successful test performance is highly related to high school grades, and as grades approach 2.0 the likelihood of success declines disproportionately. Further investigation of these relationships is needed before pertinent public policies can be proposed.

Conclusions and recommendations

By design, standardized tests are intended to assist in the decision to admit or exclude students from regular admission to college. The controversy arises from the fact, as repeatedly documented in this report, that students from certain ethnic subgroups are disproportionately likely to earn scores which disqualify them for regular admission to the University and State University. In addition, students from these same subgroups are less likely than average to participate in these tests. But before the issue of whether tests create inappropriate barriers for some students can be resolved or even discussed, a definition of "inappropriate" is required.

Validity of admissions criteria and use of eligibility indexes

The segmental eligibility indexes that combine grades and test scores to determine eligibility were designed to identify those students with the greatest probability of succeeding at the institution. However, no recent information on the predictive validity of these selection criteria for the State's public universities is available. Thus, before the issue of inappropriateness can be resolved, the University of California and the California State University should conduct validity studies of their admission criteria, including the role of test scores. At the same time, they should review the operational use of their eligibility indexes to insure proper consideration of the tests' standard errors of measurement when assessing individual applicant's eligibility. They should then submit information on the predictive validity of their admission's requirements and summary of their review of current admission practices by November 15, 1991, so that the Commission may include this information in its next report on standardized testing in California.

Non-test takers and test preparation

Differences in the proportion of graduates from different ethnic subgroups who do not take the required tests even when they appear to be otherwise qualified intimates another type of barrier to eligibility. The causes of this barrier are not well understood either. Do these students not take admission

tests because (1) their postsecondary education aspirations do not require them, (2) their friends are not taking the test, (3) the application and fee waiver process is too confusing, (4) they have to work and can't take time to take the test, (5) their parents don't value or can't afford to pay for it, (6) they don't know about the tests or that they are required, or (7) the test site is too difficult to get to. Obviously, this list is not exhaustive, and it is intended to illustrate the lack of understanding that exists in this area.

Another related issue is opportunity to prepare for the test. With university admissions becoming increasingly competitive, having the competitive advantage of high test scores is an opportunity students and their parents are willing to invest in. Thus, a whole industry devoted to standardized test coaching and preparation has arisen. Certainly, the financial ability to take advantage of these opportunities are not equitably distributed among the high school population. While the variation in type and level of test preparation is more closely related to socioeconomic status, the correlation between race and SES cause this issue to be pertinent to the current discussion.

These two issues are areas that the Commission must review in greater detail over the next two years to determine what, if any, aspect of them constitute inappropriate barriers and what methods might be available to ameliorate their impact. These are not new issues but have been concerns for as long as tests have played a pivotal role in eligibility determinations. Not surprisingly, considerable effort by schools, universities, and test sponsors has been undertaken to ensure more equitable postsecondary educational opportunities with these issues in mind.

Cooperative strategies

Data from the Commission's 1986 Eligibility Study suggests that the more comprehensive the students' curricular preparation and the stronger their academic performance in terms of grade-point averages, less differential exists among students from different ethnic groups in their likelihood of qualifying for regular admission. So the arena that provides the greatest opportunities for improving eligibility of Black and Hispanic students is insuring that they have equitable opportunities to complete successfully the required college preparatory curriculum.

The development of standardized tests arose from the cooperative efforts of educators to articulate the nature of pre-collegiate curricular preparation. In recent years in California, the State's public universities have clearly articulated the range of courses and level of achievement that they believe necessary for successful academic performance in college. In spite of this increased uniformity of curricular requirements in high school, the proportions of students from various ethnic subgroups who complete the full set of admission course requirements varies considerably. While having the curricular pattern of preparation reduces the test score disparities among students from various subgroups, Black and Hispanic students continue to have somewhat lower test scores even when their course preparation is the same. From these findings arise concerns about the fairness of the test and about the true comparability of preparation not just in terms of course titles but also in terms of the rigor and thoroughness with which the course subject matter is covered.

Test sponsors have sought to understand the sources of these disparities and remove the ones that are inappropriate. A statistical procedure, differential item functioning, has been implemented that identifies test items which appear to systematically discriminate between sets of test takers not on the basis of knowledge or skill, but by the individual's sex or ethnic group membership, making these items prime candidates for replacement. These efforts to remove possible cultural and gender bias in these tests are crucial contributions toward insuring equitable opportunities for all students.

Test sponsors have been involved in recent cooperative interinstitutional and intersegmental efforts to define and implement pre-collegiate curricula through which students gain the knowledge and skills needed to obtain the full benefits of higher education. An example of such an effort is the College Board's "Educational EQuality Project," which seeks to strengthen the academic quality of secondary education and insure equal access to postsecondary education for all students. This project is a national effort and its role and impact in California will require further research.

Test sponsors have also been involved in efforts to improve opportunities for students to take the re-

quired tests through informational programs, fee waiver options, and direct pilot programs in schools with large minority enrollments. An example of this latter activity was the American College Testing Program's work with high schools in the Bakersfield area providing information, assessment services and fee waivers for students to take the ACT. Between 1985 and 1989, the Program provided approximately 9,000 free ACT tests to high school juniors in Kern District. An evaluation of this type of effort's contribution toward improving opportunities for regular admission of Black, Hispanic, and American Indian students in California needs further review.

A myriad of intersegmental student preparation programs exist in California. In general, these programs seek to improve the preparation of secondary school students for college and university study. One of these projects -- the College Admission Test Preparation Pilot Project, established by AB 2321 (Tanner) -- seeks to increase the number of students from economically disadvantaged and ethnic minority groups in four-year colleges and universities by increasing college admission test taking, admission test performance, and college aspirations among these students. An integral component of these pilot projects is also completion of all "a-f" course requirements at higher levels of performance.

The data on the impact of the projects on test-taking rates, as presented in the projects' 1987-88 evaluation report, are inconclusive. The Commission expects to complete its comprehensive review of all intersegmental student preparation programs in 1991. Information from that review that highlights effective cooperative strategies related to students' participation and performance on standardized tests will be included in the Commission's 1992 report on these tests.

A major task for the Commission in preparation for that report will be to review all of these efforts in order to identify those amenable to public policy intervention. In addition, the Commission, with the cooperation of the State's two public universities, will seek to define what constitutes an inappropriate barrier to regular admission by examining validity studies of their eligibility criteria. The Commission expects that it will have the necessary information to identify in its 1992 report those public policy initiatives that are needed in the area of standardized testing if California's multiethnic society is to ensure equitable and excellent postsecondary education opportunities for all its citizens.

Appendix A: Senate Bill 1416 (Torres, 1989)

Senate Bill No. 1416

CHAPTER 446

An act to amend Sections 99153 and 99155 of the Education Code, relating to education.

[Approved by Governor September 13, 1989. Filed with Secretary of State September 13, 1989.]

LEGISLATIVE COUNSEL'S DIGEST

SB 1416, Torres. Postsecondary education: standardized tests.

Existing law requires the test sponsor of standardized tests which are used for the purposes of admissions to, or class placement in, postsecondary educational institutions or their programs, or preliminary preparation for those standardized tests, to submit specified data and information to the California Postsecondary Education Commission.

This bill, in addition, would require the test sponsor of standardized tests to supply to the commission any other information mutually identified by the commission and the test sponsor that will be reasonably available and helpful in assessing the state's progress in increasing the number of Hispanic, Black, or American Indian students to enroll in the University of California or the California State University and developing strategies to expand access to college for those students.

Existing law requires the California Postsecondary Education Commission to prepare and submit an annual report regarding standardized tests of the state's test subject to the Governor, the Legislature, the governing entity of each of the 3 segments of public postsecondary education, itself, and the Superintendent of Public Instruction, as specified.

This bill would require the commission to prepare and submit by May 1, 1990, and every 2 years thereafter, a biennial report that includes the information required under existing law, as well as the number of California students, by ethnicity and gender, who participate in advance placement classes in secondary schools, and take preliminary standardized college admissions tests. This bill would require the commission to report on the progress in increasing the number of Hispanic, Black, and American Indian students who graduate from high school and who are eligible to enroll in the University of California and the California State University and to present recommendations, as specified.

The people of the State of California do enact as follows:

SECTION 1. Section 99153 of the Education Code is amended to read:

99153. On or before November 15 of each year, the test sponsor shall submit to the commission all of the following data and information:

(a) Three copies of each version of the test which was disclosed in the prior testing year, along with the corresponding acceptable answers, and the methods used to convert raw scores into the test scores reported to test subjects and test score recipients, together with an explanation of that method.

(b) The dates of major or national administration of each test administered by the test agency during the testing year.

(c) The total number of test subjects who have taken the test once, who have taken it twice, and who have taken it more than twice during the testing year.

(d) The total number of test subjects who registered for, but did not take, the test.

(e) The total amount of fees received from test subjects by the test agency for the test for that testing year.

(f) The expenses to the test sponsor of the test, as follows:

(1) Those expenses which are directly attributable to the test.

(2) Those expenses which are indirectly attributable to the test. However, if the test sponsor also sponsors another test or related activities, it shall be sufficient for compliance with this section for the test sponsor to list indirectly attributable expenses, to the extent that they are identifiable, as they are proportionately related to the test. The test sponsor shall also list expenses indirectly attributable to all activities of the test's sponsor, including expenses not identifiable as attributable to a test.

The financial disclosure required by this section shall be submitted within 135 days after the close of the testing year and in sufficient detail to indicate the major categories of revenues and expenses associated with the test. Except as provided in this section, the information for different tests administered by the same test sponsor shall be reported separately and by individual test.

(g) A copy of all documents, pamphlets, and literature provided to the test subject and the test score recipient.

(h) Where applicable, the national average test scores, state average test scores, the standard error of measurement, and any other existing information relevant to a comparison of the test scores of the state's test subjects with test scores of previous test subjects of the past five years.

(i) For those tests used to predict academic performance, the most recent national or regional aggregation of data concerning the predictive validity of all of the following:

(1) Academic record or grades alone.

(2) Standardized test score alone.

(3) Academic record and test score combined.

(4) Standardized test scores over and above the predictive validity of academic record alone.

(j) Using available data, the racial, ethnic, and sex breakdown of all test subjects taking each test during the testing year.

(k) If a separate fee is charged test subjects for admissions data assembly service, the test sponsor shall report information concerning the data assembly service in substantially the same form as would be required for a test under this section.

(*l*) The test sponsor shall also supply to the commission any other information mutually identified by the commission and the test sponsor that will be reasonably available and helpful in either (1) assessing the state's progress in increasing the number of Hispanic, Black, or American Indian students who graduate from high school eligible to enroll in either the University of California or the California State University or (2) developing strategies to involve the testing companies in cooperative actions with schools, colleges, and universities to expand access to college for Hispanic, Black, and American Indian students.

(m) This section shall not be construed to require any test agency to submit to the commission any reports or documents containing information relating to any individual test subject. Any information relating to any individual test subject shall be deleted or obliterated from any reports or documents filed with the commission pursuant to this section.

(n) This section shall not apply to any standardized test which is administered to fewer than 3,000 test subjects in California during a testing year.

SEC. 2. Section 99155 of the Education Code is amended to read:

99155. By May 1, 1990, and every two years thereafter, the commission shall prepare and submit a biennial report regarding standardized tests of the state's test subjects to the Governor, the Legislature, the Regents of the University of California, the Board of Governors of the California Community Colleges, the Trustees of the California State University, and the Superintendent of Public Instruction. This report shall include a descriptive summary of existing data and information submitted to the commission pursuant to Section 99153, including all of the following:

(a) The number of California students taking standardized tests.

(b) The performance of California test subjects.

(c) The number of California students, by ethnicity and gender, who participate in advance placement classes in secondary schools and take preliminary standardized college admission tests.

(d) The predictive validity of test scores as specified in subdivision (i) of Section 99153.

(e) A description of the information specified in subdivisions (a), (b), and (d) according to the sex and ethnicity of test subjects.

(f) The revenues received by test sponsors, and the proportion of those revenues expended for test development and administration.

The commission shall also report on the progress in increasing the number of Hispanic, Black, and American Indian students who

graduate from high school eligible to enroll in either the University of California or the California State University. The testing companies shall cooperate with the commission in the sharing of available information and the development of policy recommendations for strengthening the college preparatory curriculum and increasing the availability of test preparation activities for students from ethnic groups traditionally underrepresented in postsecondary education. The commission shall present specific recommendations on (1) methods to remove the inappropriate obstacles that standardized college admissions tests may provide in precluding some students from obtaining regular admission to public colleges and universities and (2) strategies to involve the testing companies in cooperative actions with the schools, colleges, and universities to expand access to college for Hispanic, Black, and American Indian students.

O

Appendix B: Test Sponsor Materials

Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT) 41

Scholastic Aptitude Test 47

College Board Achievement Tests 53

American College Test 57

Advanced Placement Examinations 61

Test of English as a Foreign Language 73

Graduate Record Examinations 89

Graduate Management Admission Test 109

Law School Admission Test 117

Medical College Admission Test 127

The College Board
Suite 480, 2099 Gateway Place
San Jose, California 95110-1017
(408) 452-1400
FAX: (408) 453-7396

Western Regional Office

November 2, 1989

Dr. Norman Charles
Assistant Director
California Postsecondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814

Dear Dr. Charles:

Education Code Section 99151 requires the College Board, as a test sponsor, to file with the Commission certain information specified in Section 99153. The enclosed information is for the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test.

Sincerely,

John Vaccaro
Director
Admissions and Guidance Services

JV/ls
Enclosures:
(1) Section (c)(d) Test Taking Pattern Information
(1) Section (e)(f) Financial Information
(3) Form S, October 15, 1988, PSAT/NMSQT
(3) Form T, October 18, 1988, PSAT/NMSQT
(1) Answer Keys for Form S and Form T of the 1988 PSAT/NMSQT
(1) Student Bulletin, 1988 PSAT/NMSQT
(1) About Your 1988 PSAT/NMSQT
(1) 1988 PSAT/NMSQT Supervisor's Manual
(1) 1988 PSAT/NMSQT Interpretive Manual
(1) Working with the PSAT/NMSQT
(1) PSAT/NMSQT Summary Report for National, Regional and California College Board Juniors, 1988
(1) Announcement of 1988-89 Test Dates
(1) 1988 PSAT/NMSQT California Summary Reports by Ethnic Background

NOV - 5 1989

A nonprofit educational association serving students, schools, and colleges through programs designed to expand educational opportunity

THE COLLEGE BOARD

Report to the California Postsecondary Education
Commission Pursuant to California Education Code (Senate Bill 1758 - Torres)
State of California

The following information is provided in compliance with Section 99153 (c) (d).

This data is based on all national and international test administrations of the PRELIMINARY SCHOLASTIC APTITUDE TEST/NATIONAL MERIT SCHOLARSHIP QUALIFYING TEST during the 1988-89 testing year.

	PSAT/NMSQT Test
The total number of times the test was taken during the testing year	1,529,948
The number of individuals who took the test	
Once	1,529,948
Twice	-0-
More than twice	-0-
The number of individuals who registered for but did not take the test	N/A*

*The PSAT/NMSQT is school-administered; therefore, students do not register individually.

October 12, 1989

RFM/lc

Torres Report For Year Ended June 30, 1989

The following information is provided in compliance with Section 99153 (e)

	PSAT/NMSQT TEST
Fees received from test takers in the College Board's PSAT/NMSQT Test	
Test Fees	$8,138,831

The following information is provided in compliance with Section 99153 (f)

	PSAT/NMSQT TEST
Expenses directly Attributable to the PSAT/NMSQT Test	
Cost of Test Administration	$ 859,494
Direct support of test administration: publications, transcript services, etc.	753,636
Program direction	981,766
	$2,594,896

	PSAT/NMSQT TEST
Expenses indirectly attributable to the PSAT/NMSQT TEST	
Support services: publications regional offices, etc.	$ 634,000
Associational and Administrative expense	231,000
Research and Development	151,336
	$1,016,336
Total expense directly and indirectly attributable to PSAT/NMSQT test	$3,611,232

Torres Report for Year Ended June 30, 1989

Expenses identifiable as Scholastic Aptitude Test, Achievemnet Test, PSAT/NMSQT Test and Advanced Placement Tests have been allocated thereto. Joint costs have been allocated based on the Test volumes involved.

The following information is also provided in compliance with Section 99153 (f)

	Total
Total expense attributable to all activities including expenses not identifiable as attributable to the test	
Support services: publications, general offices, etc.	$10,977,558
Associational and administrative expense	13,263,339
Research and Development	3,970,005
	$28,210,902

The College Board
Suite 480, 2099 Gateway Place
San Jose, California 95110-1017
(408) 452-1400
FAX: (408) 453-7396

Western Regional Office

November 2, 1989

Dr. Norman Charles
Assistant Director
California Postsecondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814

Dear Dr. Charles:

Education Code Section 99151 requires the College Board, as a test sponsor, to file with the Commission certain information specified in Section 99153. The enclosed information is for the Scholastic Aptitude Test and the College Board Achievement Tests.

Sincerely,

John Vaccaro
Director
Admissions and Guidance Services

JV/ls
Enclosures:
(1) Section 99153 (c)(d) Test Taking Pattern Information
(1) Section 99153 (e)(f) Financial Information
(3) 5 SATs, 1989 Edition*
(1) Registration Bulletin, SAT and Achievement Tests, 1989-90
(1) Taking the SAT
(1) Taking the Achievement Tests
(1) Using Your College Planning Report, 1989-90
(1) 1989-90 ATP Guide
(1) Guidelines on the Uses of College Board Test Scores and Related Data
(1) Announcement of 1988-89 Test Dates
(1) California Report, College Bound Seniors, 1989 Profile
(1) National Report, College Bound Seniors, 1989 Profile

*1 enclosed; 2 to be forwarded under separate cover when available.

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A nonprofit educational association serving students, schools, and colleges through programs designed to expand educational opportunity

THE COLLEGE BOARD

Report to the California Postsecondary Education
Commission Pursuant to California Education Code (Senate Bill 1758 - Torres)
State of California

The following information is provided in compliance with Section 99153 (c) (d).

This data is based on all national and international test administrations of the Scholastic Aptitude Test during the 1988-89 testing year.

	Scholastic Aptitude Test
The total number of times the test was taken during the testing year	1,992,813
The number of individuals who took the test	
Once	1,531,298
Twice	201,239
More than twice	18,869
The number of individuals who registered for but did not take the test	165,928

October 4, 1989

RFM/lc
1379T

Torres Report For Year Ended June 30, 1989

The following information is provided in compliance with Section 99153 (e)

	Scholastic Aptitude Test
Fees received from test takers in the College Board's SCHOLASTIC APTITUDE TEST	
Test Fees	$25,909,000
Transcripts, Score Reports, etc.	$15,998,543
	$41,907,543

The following information is provided in compliance with Section 99153 (f)

	Scholastic Aptitude Test
Expenses directly Attributable to the SCHOLASTIC APTITUDE TEST	
Test development, analysis and validation	$ 3,272,717
Cost of Test Administration	19,164,694
Direct support of test administration: publications, transcript services, etc.	13,506,401
Summary reporting services	454,009
Program direction	782,006
	$37,179,827

	Scholastic Aptitude Test
Expenses indirectly attributable to the SCHOLASTIC APTITUDE TEST	
Support services: publications regional offices, etc.	$ 2,090,165
Associational and Administrative expense	2,796,930
Research and Development	510,237
	$ 5,397,332
Total expense directly and indirectly attributable to SCHOLASTIC APTITUDE TEST	$42,577,159

Torres Report for Year Ended June 30, 1989

Expenses identifiable as Scholastic Aptitude Test, Achievement Test, PSAT/NMSQT Test and Advanced Placement Tests have been allocated thereto. Joint costs have been allocated based on the Test volumes involved.

The following information is also provided in compliance with Section 99153 (f)

	Total
Total expense attributable to all activities including expenses not identifiable as attributable to the test	
Support services: publications, general offices, etc.	$10,977,558
Associational and administrative expense	13,263,339
Research and Development	3,970,005
	$28,210,902

THE COLLEGE BOARD

Report to the California Postsecondary Education
Commission Pursuant to California Education Code (Senate Bill 1758 - Torres)
State of California

The following information is provided in compliance with Section 99153 (c) (d).

This data is based on all national and international test administrations of the Achievement Tests during the 1988-89 testing year.

	Achievement Tests
The total number of times the test was taken during the testing year	315,541
The number of individuals who took the test	
Once	283,425
Twice	15,230
More than twice	546
The number of individuals who registered for but did not take the test	29,907

October 12, 1989

RFM/lc

Torres Report For Year Ended June 30, 1989

The following information is provided in compliance with Section 99153 (e)

	Achievement Tests
Fees received from test takers in the College Board's ACHIEVEMENT TESTS	
Test Fees	$ 6,320,000
Transcripts, Score Reports, etc.	2,604,414
	$ 8,924,414

The following information is provided in compliance with Section 99153 (f)

	Achievement Tests
Expenses directly Attributable to the ACHIEVEMENT TESTS	
Test development, analysis and validation	$ 2,439,542
Cost of Test Administration	3,772,089
Direct support of test administration: publications, transcript services, etc.	2,018,424
Summary reporting services	454,001
Program direction	127,304
	$ 8,811,360

	Achievement Tests
Expenses indirectly attributable to the ACHIEVEMENT TESTS	
Support services: publications regional offices, etc.	$ 340,259
Associational and Administrative expense	656,070
Research and Development	231,173
	$ 1,227,502
Total expense directly and indirectly attributable to ACHIEVEMENT TESTS	$10,038,862

Torres Report for Year Ended June 30, 1989

Expenses identifiable as Scholastic Aptitude Test, Achievement Tests, PSAT/NMSQT Test and Advanced Placement Tests have been allocated thereto. Joint costs have been allocated based on the Test volumes involved.

The following information is also provided in compliance with Section 99153 (f)

	Total
Total expense attributable to all activities including expenses not identifiable as attributable to the test	
Support services: publications, general offices, etc.	$10,977,558
Associational and administrative expense	13,263,339
Research and Development	3,970,005
	$28,210,902

ACT

October 30, 1989

NOV - 2 1989

Horace F. Crandell
Postsecondary Education Administrator
California Postsecondary Education Commission
1020 12th Street, Second Floor
Sacramento, CA 95814

Dear Mr. Crandell:

In compliance with the California Education Code, Part 65, Chapter 3, related to standardized testing, The American College Testing Program, Inc. (ACT) hereby files the prescribed information as required by law for the testing year September 1, 1988 through August 31, 1989:

(1)	Total tests taken during the testing year	1,391,378
	Individuals taking the test once	521,964
	Individuals taking the test twice	340,089
	Individuals taking the test more than twice	58,950
	Individuals who registered but did not take the test	130,033
	Total amount of fees received from test subjects	$21,286,834
	Direct expense for testing program:	
	Test Adm., Scoring and Reporting	$12,690,147
	Research and Development	1,944,458
	Secondary & Postsecondary Institutions Support Services	2,924,502
	Program Administration	940,220
	Total Direct Expense	$18,499,327
	Indirect Expenses	$ 2,271,468

(2) ACT does not offer an admissions data assembly service.

(3) Copies of each general publication prepared for routine distribution to test subjects and test score recipients are enclosed.

(4) Research data pertaining to test scores for California and the nation are enclosed. Research reports that have not been updated since our last filing have not been repeated with this filing.

2201 North Dodge Street, P.O. Box 168
Iowa City, Iowa 52243
(319) 337-1000

(5) Copies of each general publication prepared for routine distribution to ACT participating colleges and universities are also enclosed.

This completes our filing for the 1988-89 testing year. Please let me know if additional materials are required under the law.

Sincerely,

Joseph B. Pugh, Jr.
Vice President

JBP:js

Enclosures

EXHIBITS

Exhibits A-1 through A-3:	Three copies of each version of the ACT Assessment disclosed during the 1988-89 testing year, along with the corresponding answers, the methods used to convert raw scores into test scores, and an explanation of the method used. (Forms 28E, 28F, and 29B)
Exhibit B:	Registering for the ACT Assessment (combined East/West Regions) Contains: a. The dates of national administration of the ACT Assessment (page 1) b. Registration information (page 1) c. Score reporting information (pages 1 & 2) d. The ACT Interest Inventory (page 5) e. The Student Profile Section (pages 6-10)
Exhibit C:	Preparing for the ACT Assessment
Exhibit D:	Using Your ACT Assessment Results
Exhibit E:	Contents of the Tests in the ACT Assessment
Exhibit F:	ACT Assessment Student Information
Exhibit G:	Using the ACT Assessment on Campus
Exhibit H:	Counselor's Handbook
Exhibit I:	The ACT Assessment Test Preparation Reference Manual for Teachers and Counselors
Exhibit J:	Reporting Services for Colleges and Universities
Exhibit K:	Research and Information Services
Exhibit L:	Helping Students Grow
Exhibit M:	Education Opportunity Service
Exhibit N:	Request for ACT Assessment Special Testing
Exhibit O:	High School Profile Report Composite for California and National Composite
Exhibit P:	Trend Tables for ACT-Tested Students in California (contains racial/ethnic, sex, etc., breakdown)
Exhibit Q:	ACT Class Profile Report - National Norms
Exhibit R:	College Student Profiles - Norms for ACT Assessment
Exhibit S:	Research Services Summary Tables (1985-86, 1986-87, 1987-88)

The College Board
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FAX: (408) 453-7396

Western Regional Office

November 2, 1989

Dr. Norman Charles
Assistant Director
California Postsecondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814

Dear Dr. Charles:

Education Code Section 99151 requires the College Board, as a test sponsor, to file with the Commission certain information specified in Section 99153. The enclosed information is for the Advanced Placement examinations.

Sincerely,

John Vaccaro

John Vaccaro
Director
Admissions and Guidance Services

JV/ls
Enclosures:
(1) Section 99153 (c)(d) Test Taking Pattern Information
(1) Section 99153 (e)(f) Financial Information
(1) Bulletin for Students, Advanced Placement Program, May 1990
(1) A Guide to the Advanced Placement Program, May 1990
(1) 1989 Coordinator's Manual, AP Exams (May 8-12, 15-19, 1989)
(1) School Administrator's Guide to the Advanced Placement Program
(1) 1989 AP National and California Summary Reports (available December 1989)*
(1) 1990 Test Dates, Advanced Placement Examination
(1) Advanced Placement Yearbook, 1989

*To be forwarded under separate cover December 1989

NOV - 5 1989

A nonprofit educational association serving students, schools, and colleges through programs designed to expand educational opportunity

THE COLLEGE BOARD

Report to the California Postsecondary Education
Commission Pursuant to California Education Code (Senate Bill 1758 - Torres)
State of California

The following information is provided in compliance with Section 99153 (c) (d).

This data is based on all national and international test administrations of the Advanced Placement Program during the 1988-89 testing year.

	Advanced Placement Examination
The total number of times the examination was taken during the testing year	463,000
The number of individuals who took the examination	
Once	463,000
Twice	-0-
More than twice	-0-
The number of individuals who registered for but did not take the examination	N/A**

**Advanced Placement students register at time of the examination administration.

October 12, 1989

RFM/lc

Torres Report For Year Ended June 30, 1989

The following information is provided in compliance with Section 99153 (e)

	ADVANCED PLACEMENT PROGRAM
Fees received from examination takers in the College Board's ADVANCED PLACEMENT PROGRAM (APP)	
Examination Fees	$23,285,803

The following information is provided in compliance with Section 99153 (f)

	ADVANCED PLACEMENT PROGRAM
Expenses directly attributable to the ADVANCED PLACEMENT PROGRAM	
Examination development, analysis and validation	$ 2,791,931
Cost of Examination Administration	9,570,670
Direct support of examination administration: publications, transcript services, essay readings, etc.	2,345,814
Program Direction	987,178
	$15,695,593

	ADVANCED PLACEMENT PROGRAM
Expenses indirectly attributable to the ADVANCED PLACEMENT PROGRAM	
Support services: publications regional offices, etc.	$ 2,626,272
Associational and Administrative expense	1,333,000
Research and Development	500,328
	$ 4,459,600
Total expense directly and indirectly attributable to ADVANCE PLACEMENT PROGRAM	$20,155,193

Torres Report for Year Ended June 30, 1989

Expenses identifiable as Scholastic Aptitude Test, Achievement Test, PSAT/NMSQT Test and Advanced Placement Tests have been allocated thereto. Joint costs have been allocated based on the Test volumes involved.

The following information is also provided in compliance with Section 99153 (f)

	Total
Total expense attributable to all activities including expenses not identifiable as attributable to the test	
Support services: publications, general offices, etc.	$10,977,558
Associational and administrative expense	13,263,339
Research and Development	3,970,005
	$28,210,902

Advanced Placement Program®
THE COLLEGE BOARD

NATIONAL TOTAL: ALL CANDIDATES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

Administration Date: MAY, 1988

NUMBER OF CANDIDATES FOR EACH COMBINATION

Code / Name	AP Grade	Total Exams	American History	Art History	Art Studio Drawing	Art Studio General	Biology	Chemistry	Computer Science A	Computer Science AB	English Language and Comp	English Literature and Comp	European History	French Language	French Literature	German Language	Govt and Politics American	Govt and Politics Comparative	Latin Virgil	Latin Catullus-Horace	Math/Calc AB	Math/Calc BC	Music Listening/Literature	Music Theory	Physics B	Physics C Mech	Physics C Elec & Mag	Spanish Language	Spanish Literature	Level	Number of Candidates at Each Level
NATIONAL TOTAL	5	58584	8419	425	177	356	4664	2115	2179	1095	2125	10566	1861	1312	315	357	910	276	319	126	9462	3902	44	122	720	1132	775	4480	350	9 & 10	12023
	4	89573	22518	519	210	422	7142	3504	1544	643	4691	16887	4354	1531	380	396	2432	664	321	127	12093	2163	63	164	1272	1196	752	2930	653	11	95866
	3	133409	23053	1085	205	814	7723	5629	2246	1951	7218	38075	8747	2819	668	894	4655	1180	588	311	14803	3140	98	279	2423	1170	535	4286	934	12	175572
	2	95549	22692	325	211	254	7246	3601	1679	1038	6290	25246	4128	1835	388	479	3059	1021	382	120	8423	1339	62	188	1261	982	576	2573	399	Col	91
	1	41986	5601	222	37	141	3837	2549	2799	2476	1183	3325	2274	1215	198	134	964	491	260	156	8614	1255	40	79	1252	550	415	1746	173	Other	4820
	T	419101	82283	2576	920	1987	30612	17398	10447	7203	21507	91899	21358	8712	1869	2260	12020	3632	1790	840	53395	11879	307	832	6928	4950	3053	15935	2509	Total	380372
MEAN GRADE		3.06	3.07	3.23	3.30	3.30	3.05	2.96	2.87	2.56	3.01	3.07	2.97	2.99	3.16	3.36	2.96	2.78	3.00	2.94	3.10	3.53	3.03	3.07	2.85	3.29	3.29	3.36	3.24		
AMER INDIAN/ALASKAN NATIVE	5	70	9	1	1		6	3	2	2	2	20	4	2	1	1	1				7	1				1	1	5		9 & 10	25
	4	282	51			3	13	8	5		19	40	15	3	1		4	1	2		23	1			3	1		8	1	11	294
	3	329	59	2	2	1	16	11	2	4	26	108	21	4	3		14	1	1		34	5			4			9	2	12	460
	2	333	89	1	3	1	18	16	8	3	28	97	11	6		2	10	5	1		16	6			2	3		6	1	Col	
	1	138	26	1			17	7	3	8	12	10	10	2			4	1	1		24	1			8		1	2		Other	17
	T	1072	234	5	6	5	70	45	20	17	87	275	61	17	5	3	33	8	5		104	14			17	5	2	30	4	Total	804
MEAN GRADE		2.75	2.69	2.80	2.83	3.40	2.61	2.64	2.75	2.12	2.67	2.87	2.87	2.82	3.60	3.00	2.64	2.25	2.80		2.79	2.64			2.12	3.00	3.00	3.27	3.00		
BLACK OR AFRO-AMER	5	658	101	8	7	2	44	14	24	13	29	154	12	49	5	2	7	4	5	3	80	39	2	1	5	12	6	26	4	9 & 10	235
	4	1418	371	8	8	11	141	32	25	4	78	296	46	43	6	4	23	14	11	3	171	25	2	6	9	16	12	42	11	11	3263
	3	3371	662	18	15	28	287	116	48	34	171	986	184	89	11	2	111	30	15	8	399	64	2	8	35	8	8	94	27	12	6691
	2	4480	1055	6	14	10	347	129	42	26	321	1631	155	51	11	2	120	36	9	4	313	29	2	12	21	22	12	92	8	Col	2
	1	3917	619	15	1	9	426	228	187	118	192	702	173	40	6	1	120	38	10	4	709	39	1	4	73	42	14	139	7	Other	257
	T	13844	2808	55	45	60	1165	519	326	195	791	3769	570	263	39	11	381	122	50	22	1672	196	9	31	143	100	52	393	57	Total	10448
MEAN GRADE		2.31	2.39	2.78	3.13	2.78	2.17	1.99	1.95	1.81	2.28	2.36	2.24	3.04	2.82	3.36	2.15	2.26	2.04	2.86	2.16	2.90	3.22	2.61	1.97	2.34	2.69	2.30	2.95		
CHICANO/MEXICAN AMERICAN	5	1165	62		1	9	16	7	12	4	15	72	9	6	2		3	1	1	1	56	11				2		867	8	9 & 10	258
	4	1185	218	5	6	6	41	21	9	2	43	163	32	8	1	2	36	6		1	118	9			7	3	3	424	21	11	1911
	3	1784	281	24	3	14	58	41	28	14	132	451	54	32	1	3	78	11	2	1	181	18			16	5	2	269	73	12	3050
	2	1873	401	9	11	4	77	31	13	18	199	597	55	19	1	1	104	22	3		130	11			14	16	6	86	51	Col	2
	1	994	161	1		2	97	44	34	23	38	161	54	17	1	1	46	10	1	1	157	25	1	1	24	18	7	44	25	Other	104
	T	7001	1123	39	21	35	291	144	88	53	427	1444	204	82	6	7	267	50	7	4	642	74	1	1	61	44	18	1690	178	Total	5325
MEAN GRADE		2.95	2.66	2.85	2.86	3.46	2.31	2.42	2.45	2.13	2.53	2.58	2.45	2.60	3.33	2.86	2.42	2.32	2.57	3.25	2.67	2.59	1.00	1.00	2.10	1.98	2.06	4.17	2.64		
ORIENTAL/ASIAN AMERICAN	5	7795	989	50	21	50	908	475	315	140	198	766	192	87	24	17	91	29	51	17	1658	1017	5	14	138	199	154	164	26	9 & 10	1735
	4	9976	2239	51	23	33	1023	676	247	102	398	1202	339	137	31	21	279	53	34	12	1703	487	3	19	201	230	157	229	51	11	10092
	3	13369	2091	116	24	51	909	1016	332	336	585	2460	799	263	65	54	464	94	73	21	1814	644	9	18	346	216	102	376	71	12	15192
	2	8837	1891	30	15	17	725	534	271	151	490	1022	370	167	32	30	285	95	24	9	948	274	5	6	172	136	97	210	26	Col	7
	1	4331	478	28	3	5	310	332	393	422	105	250	173	89	23	3	111	44	29	7	837	235	2	3	156	63	82	127	11	Other	370
	T	44308	7688	275	86	156	3875	3033	1558	1151	1784	6588	1873	743	175	125	1230	315	211	66	6957	2657	24	56	1033	864	592	1096	185	Total	27396
MEAN GRADE		3.18	3.18	3.24	3.51	3.60	3.39	3.14	2.88	2.47	3.05	3.06	3.00	2.95	3.01	3.15	2.96	2.77	3.26	3.35	3.34	3.67	3.17	3.55	2.99	3.30	3.34	3.10	3.30		
PUERTO RICAN	5	511	17		1	4	15	3	4	2	1	19	2	3	1		1			1	15	8		1	4	2	1	365	41	9 & 10	91
	4	380	57	2	2	2	19	10	3	2	13	42	8	6			6	1	1	2	31	4			3	1		130	35	11	525
	3	531	77	4	1	2	28	10	9	5	26	111	28	14	2		10	3	1		53	7			3	2	1	75	59	12	1006
	2	490	104	4	2	2	38	9	15	7	30	133	16	6	1		16	4		1	48	4		2	4	2		20	22	Col	1
	1	356	51	4	3	1	23	10	46	38	11	42	10	9			6	1			62	5	1	1	3	2	2	10	15	Other	29
	T	2268	306	14	9	11	123	42	77	54	81	347	64	38	4		39	9	2	4	209	28	1	4	17	9	4	600	172	Total	1652
MEAN GRADE		3.09	2.62	2.29	2.56	3.55	2.72	2.69	1.75	1.57	2.54	2.61	2.63	2.68	3.25		2.49	2.44	3.50	3.75	2.47	3.21	1.00	2.50	3.06	2.09	2.50	4.37	3.38		
OTHER HISPANIC/LATIN AMERICAN	5	2262	91	6	4	8	39	17	16	7	18	101	18	46	14		12	2			91	30			6	10	8	1648	78	9 & 10	364
	4	1706	303	10	6	11	88	25	24	3	60	208	65	48	10	1	46	11	1	1	130	25		1	9	9	6	432	188	11	2222
	3	2273	346	23	6	23	109	53	45	27	124	478	121	88	9	5	92	20	3	3	201	39	1	3	36	15	2	179	238	12	3609
	2	1715	307	10	5	3	126	59	38	23	122	380	69	39	6	4	91	11	2		143	12	2	1	18	17	5	49	93	Col	2
	1	974	142	8		4	96	69	74	50	25	70	48	26	7	2	49	5	3	2	167	25	2	1	20	15	4	20	48	Other	148
	T	8930	1269	57	21	49	458	223	197	110	349	1221	322	239	46	12	290	49	9	6	732	131	5	6	89	66	25	2328	629	Total	6345
MEAN GRADE		3.29	2.85	2.93	3.43	3.33	2.67	2.38	2.34	2.04	2.70	2.90	2.80	3.21	3.39	2.42	2.59	2.88	2.22	2.50	2.77	3.18	1.80	2.67	2.50	2.73	3.36	4.56	3.26		
WHITE OR CAUCASIAN	5	40987	6337	307	124	246	3167	1405	1640	838	1685	8557	1457	941	218	290	729	219	225	86	6896	2533	30	84	510	787	521	994	153	9 & 10	7824
	4	67478	17448	378	148	322	5147	2437	1119	498	3704	13699	3478	1111	282	329	1874	527	243	96	9055	1457	48	124	914	829	504	1414	301	11	78434
	3	102117	17069	789	207	618	5755	3903	1621	1307	5656	29021	6808	2078	489	762	3569	945	449	241	11128	2135	73	234	1763	817	381	2964	391	12	133632
	2	71383	17238	236	146	282	5482	2558	1176	739	4789	18968	3126	1387	225	402	2226	788	243	101	6271	904	48	151	929	650	418	1908	176	Col	68
	1	28376	3801	152	29	109	2628	1677	1852	1638	720	1859	1596	941	145	121	547	388	195	126	6881	835	30	60	868	352	274	1323	59	Other	3152
	T	310261	62685	1862	654	1497	22099	12068	7408	5892	16474	72104	16457	6458	1359	1912	8945	2829	1355	650	39431	7864	229	653	4984	3435	2098	8603	1080	Total	215110
MEAN GRADE		3.07	3.08	3.24	3.29	3.26	3.04	2.94	2.94	2.64	3.06	3.11	3.08	2.96	3.15	3.15	3.08	2.81	3.04	2.87	3.11	3.59	3.00	3.03	2.85	3.31	3.28	2.87	3.29		
OTHER	5	795	109	10	3	7	55	26	23	14	27	149	31	30	11	9	12	3	5	1	104	61	1	5	6	23	15	41	6	9 & 10	157
	4	1081	262	8	2	3	102	41	11	3	54	188	63	34	10	11	36	7	4	2	114	22		5	18	15	14	42	10	11	1123
	3	1441	237	14	3	9	104	63	23	18	89	327	97	44	18	14	72	18	3	3	124	39	2	4	27	20	5	59	5	12	1834
	2	1091	283	2	2	4	77	57	23	9	62	256	46	26	2	2	48	19	3	1	82	18	1	1	17	8	11	26	5	Col	4
	1	525	66	2		2	39	42	33	31	18	57	24	18		1	23	7	3	3	89	20		1	17	7	3	18	1	Other	87
	T	4933	957	36	10	25	377	229	113	75	250	977	261	160	41	37	191	54	18	10	513	160	4	16	85	73	48	186	27	Total	3285
MEAN GRADE		3.11	3.07	3.61	3.60	3.36	3.15	2.79	2.72	2.47	3.04	3.12	3.12	3.30	3.73	3.60	2.82	2.63	3.28	2.70	3.12	3.54	3.25	3.75	2.75	3.53	3.56	.33	3.56		
NO RESPONSE	5	4341	704	43	15	30	414	165	143	75	150	728	136	140	39	38	54	18	32	17	555	202	6	17	51	56	69	298	34	9 & 10	1334
	4	6147	1569	57	15	31	568	254	101	37	322	1057	309	141	39	28	128	44	25	10	748	133	10	13	108	52	56	209	43	11	6002
	3	8194	1431	95	24	68	537	336	146	126	489	1941	643	232	78	54	245	58	41	34	869	189	11	12	173	87	34	261	68	12	10090
	2	5427	1252	27	13	11	434	208	93	78	321	1362	272	134	30	36	159	49	17	4	475	81	4	15	84	48	35	176	17	Col	5
	1	2375	257	11	1	9	201	140	177	140	62	174	186	73	16	5	58	27	18	13	488	78	3	8	83	31	28	73	15	Other	656
	T	26484	5213	233	68	149	2154	1103	660	456	1264	5262	1546	720	196	153	644	196	133	78	3135	755	34	65	499	354	222	1017	177	Total	18087
MEAN GRADE		3.18	3.23	3.40	3.44	3.42	3.26	3.09	2.91	2.61	3.14	3.15	2.96	3.20	3.28	3.27	2.94	2.88	3.27	3.18	3.13	3.63	3.35	3.25	2.92	3.49	3.46	3.47	3.36		

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NATIONAL	5	35359	5375	161	88	145	2807	1722	2036	1038	1037	4110	1287	426	94	167	612	200	187	75	6433	3028	26	72	641	1057	712	1677	149	9 & 10	6769
	4	49031	12960	213	102	178	3774	2641	1363	589	2047	6595	2637	452	108	201	1487	421	187	71	7274	1493	29	82	1046	1036	649	1144	260	11	49268
	3	67591	12017	421	124	299	3004	3077	1890	1722	3001	14142	4043	837	214	447	2653	749	335	177	8461	2064	39	150	1830	949	446	1652	358	12	83970
	2	44901	10282	98	103	98	3108	2194	1363	887	2515	10483	1951	552	97	259	1510	602	106	68	4517	845	28	100	888	643	453	986	165	Col	44
	1	21392	2067	81	18	53	1386	1427	2075	1973	517	1665	1011	428	76	73	392	240	144	80	4595	763	24	45	816	394	329	634	86	Other	2377
TOTAL	Total	218354	42701	974	435	765	14959	11061	8735	6206	9117	36995	11729	2695	589	1147	6654	2212	1039	471	31280	8195	146	449	5221	4079	2589	6093	1018	Total	142420
MEAN GRADE		3.15	3.22	3.28	3.32	3.33	3.23	3.09	2.99	2.65	3.06	3.03	3.11	2.96	3.00	3.11	3.06	2.80	3.08	2.99	3.21	3.63	3.03	3.08	2.96	3.42	3.37	3.37	3.22		
AMER INDIAN/ALASKAN NATIVE	5	36	5		1		5	2	2	2	1	5	2	1			1				3	1				1	1	3		9 & 10	16
	4	123	32			3	8	7	5		9	17	12		1		1		1		17	1			3	1		5		11	150
	3	172	35		2	1	7	10	2	4	13	35	13	1	2		8	1			25	3			3			5	2	12	235
	2	160	45		2		4	8	7	3	7	49	5	1		1	4	3	1		10	3			1	1		4	1	Col	
	1	62	10				7	1	3	7	5	6	3	1			3	1			11				4					Other	10
	Total	553	127		5	4	31	28	19	16	35	112	35	4	3	1	17	5	2		66	8			11	3	1	17	3	Total	411
MEAN GRADE		2.84	2.82		3.00	3.75	3.00	3.04	2.79	2.19	2.03	2.79	3.14	2.75	3.33	2.00	2.59	2.00	3.00		2.06	3.00			2.45	3.67	5.00	3.41	2.67		
BLACK OR AFRO-AMER	5	324	51	2	6	2	21	7	23	12	14	43	6	13	2	1	3	2	3	1	47	29	1		4	12	6	11	2	9 & 10	104
	4	600	160	3	5	8	58	24	24	4	33	74	24	8		2	10	7	6	1	93	13	1	2	6	13	11	9	1	11	1264
	3	1392	299	6	7	18	84	68	37	31	52	380	85	18	1	1	52	14	5	5	197	37	1	3	23	7	7	26	8	12	2468
	2	1617	379	2	10	7	111	65	38	22	104	495	74	14	1		53	17	3	2	127	28	2	8	13	17	18	29	2	Col	1
	1	1478	194	4		4	121	94	125	84	66	237	74	6	4	1	39	11	2		278	19	1	2	39	26	18	30	5	Other	91
	Total	5411	1083	17	28	39	395	258	239	155	269	1149	263	59	8	5	157	51	19	9	742	118	6	15	85	75	44	105	18	Total	3928
MEAN GRADE		2.39	2.53	2.82	3.25	2.92	2.36	2.17	2.12	1.93	2.38	2.30	2.29	3.14	2.38	3.40	2.27	2.45	3.26	3.11	2.33	3.11	2.83	2.33	2.09	2.57	2.84	2.45	2.61		
CHICANO/MEXICAN AMERICAN	5	437	37			6	10	6	12	4	7	25	8	1	1		2	1			32	8				2		269	6	9 & 10	114
	4	561	124	1	6	2	24	11	9	2	20	57	22	2			23	6			76	6			8	3	2	148	12	11	839
	3	847	161	9	1	7	35	22	18	13	56	173	26	8	1	3	40	3	2	1	105	11			11	5	2	107	27	12	1283
	2	810	180	3	9	3	33	12	12	9	77	223	25	3		1	46	13	3		65	6			11	9	6	41	20	Col	
	1	453	78			1	38	25	22	15	11	75	14	6		1	12	4			81	28		1	14	13	4	17	9	Other	43
	Total	3108	572	13	16	19	140	76	73	43	171	553	95	20	2	5	123	27	5	1	359	51		1	41	32	14	582	74	Total	2279
MEAN GRADE		2.91	2.79	2.85	2.81	3.47	2.54	2.49	2.68	2.33	2.62	2.52	2.84	2.45	4.00	2.40	2.65	2.52	2.40	3.00	2.76	2.53		1.00	2.17	2.13	2.14	4.05	2.81		
ORIENTAL/ASIAN AMERICAN	5	5058	629	22	14	19	566	356	285	130	103	303	133	38	8	6	57	21	33	10	1079	748	1	6	116	180	131	72	8	9 & 10	1070
	4	5758	1268	26	13	12	587	468	286	91	179	588	199	46	6	7	158	31	19	4	989	324	2	5	163	191	130	105	21	11	5438
	3	7189	1094	42	9	20	488	620	264	277	273	1038	445	86	27	28	273	64	43	11	1012	408	1	9	254	165	79	139	28	12	8006
	2	4518	903	11	7	10	347	306	218	124	228	845	171	52	15	19	125	53	16	7	527	163	3	2	114	98	75	84	11	Col	4
	1	2411	197	9	3	1	141	193	278	322	48	136	88	35	10	2	68	18	16	5	446	142	1	2	99	50	58	51	8	Other	189
	Total	24934	4091	110	46	62	2129	1943	1235	944	823	2030	1036	249	66	62	673	187	127	37	4053	1769	8	24	746	684	473	451	76	Total	14707
MEAN GRADE		3.26	3.30	3.37	3.61	3.61	3.51	3.25	3.02	2.56	3.00	3.00	3.11	2.94	2.88	2.94	3.04	2.91	3.29	3.19	3.43	3.77	2.88	3.46	3.11	3.52	3.42	3.14	3.13		
PUERTO RICAN	5	221	13			1	9	3	3	2		5	2	1	1		1				8	6			4	2	1	140	19	9 & 10	31
	4	170	30		1	1	5	5	3	1	5	13	5	1			4	1	1	2	10	2			2	1		49	20	11	230
	3	245	37	1	1	2	17	7	8	5	11	38	17	6			5				34	6			2	1		24	23	12	449
	2	228	51	1	1	2	16	6	12	5	17	47	8				7	3		1	25	2		1	4	1		8	10	Col	1
	1	187	17	3	1	1	11	8	38	33	3	21	4	3			2				25	2			2	1	1	3	8	Other	14
	Total	1051	148	5	4	7	58	29	64	46	36	124	34	11	1		19	4	1	3	110	18		1	14	6	2	224	80	Total	725
MEAN GRADE		3.01	2.80	1.60	2.50	2.86	2.74	2.62	1.77	1.57	2.58	2.47	2.81	2.73	5.00		2.74	2.50	4.00	3.33	2.63	3.44		2.00	3.14	3.33	3.00	4.41	3.40		
OTHER HISPANIC/LATIN AMERICAN	5	990	65	3	1	4	27	15	16	7	8	43	13	13	3		8	2			69	26			6	9	8	614	30	9 & 10	169
	4	828	167	4	4	7	54	18	23	3	21	77	34	16	1	1	30	6	1	1	98	28			6	9	5	160	60	11	1011
	3	1085	181	6	4	6	52	38	39	24	42	175	64	28	1	3	58	12	2	1	121	29	1	2	30	12	2	77	83	12	1577
	2	772	161	2	3		53	36	35	19	40	152	31	14	1	2	50	10	1		74	9		1	13	8	4	28	33	Col	1
	1	517	53	2		2	39	40	56	43	12	43	18	9	2	1	21	3		1	92	15	2	1	16	13	4	7	22	Other	61
	Total	4192	627	17	12	19	225	147	169	96	123	490	162	72	8	7	167	33	4	3	446	99	3	4	71	51	23	878	236	Total	2819
MEAN GRADE		3.24	3.05	3.24	3.25	3.50	2.90	2.54	2.46	2.08	2.70	2.85	2.97	3.14	3.25	2.57	2.72	2.82	3.00	2.67	2.93	3.33	1.67	2.25	2.62	2.06	3.39	4.54	3.22		
WHITE OR CAUCASIAN	5	25187	4073	112	53	101	1910	1174	1539	793	801	3319	1004	316	65	136	496	156	131	53	4727	1969	18	51	462	742	488	430	68	9 & 10	4479
	4	36988	10117	147	67	126	2676	1808	991	451	1607	5342	2113	319	84	171	1155	343	143	68	5459	1031	21	67	757	731	445	560	117	11	36588
	3	51642	9329	318	91	225	2861	2833	1309	1243	2341	11448	3777	609	151	379	2030	604	261	137	6385	1422	33	130	1345	672	323	1152	154	12	63961
	2	33685	7864	71	64	73	2309	1685	962	635	1871	7941	1493	412	73	213	1129	459	150	54	3369	585	22	80	661	466	322	724	78	Col	33
	1	14731	1396	59	13	40	938	972	1398	1320	326	1015	712	326	53	65	222	192	111	64	3358	515	18	37	573	259	227	497	25	Other	1563
	Total	162233	32779	707	288	565	10694	8472	6279	4442	6946	29065	9099	1982	426	964	5032	1754	796	368	23298	5522	112	365	3798	2870	1805	3363	442	Total	106624
MEAN GRADE		3.15	3.23	3.26	3.29	3.31	3.22	3.08	3.05	2.72	3.10	3.07	3.13	2.94	3.08	3.10	3.11	2.89	3.04	2.96	3.21	3.61	2.99	3.04	2.97	3.43	3.36	2.91	3.28		
OTHER	5	488	72	3	2	4	28	23	23	14	19	69	27	11	3	8	8	3	5	1	67	43		2	5	20	13	12	3	9 & 10	94
	4	636	167	5	1	2	56	34	18	3	25	84	39	18	3	8	23	4	1	1	73	16		3	15	12	11	18	4	11	580
	3	766	124	7	1	3	46	44	18	15	40	156	55	18	5	8	41	12	2	2	69	27		2	22	28	5	21	3	12	960
	2	565	140	1		1	41	34	28	7	29	115	24	12		1	23	10	2	1	48	15	1		9	6	11	10	4	Col	2
	1	289	28			1	18	20	27	28	9	33	9	7			11	4	3	1	45	13			12	7	3	9	1	Other	55
	Total	2744	531	16	4	11	189	155	98	67	122	457	154	66	11	25	106	33	13	6	302	114	1	7	63	65	43	70	15	Total	1691
MEAN GRADE		3.17	3.22	3.63	4.25	3.64	3.19	3.04	2.82	2.52	3.13	3.09	3.33	3.21	3.82	3.92	2.96	2.76	3.23	3.00	3.23	3.54	2.00	4.00	2.07	3.49	3.47	3.20	3.27		
NO RESPONSE	5	2618	430	19	11	8	231	136	133	71	84	298	92	40	11	16	36	15	15	10	401	206	6	13	44	89	64	126	13	9 & 10	692
	4	3367	895	27	5	9	306	186	92	34	148	423	187	42	13	12	83	23	15	2	459	80	5	5	89	75	45	98	17	11	3168
	3	4253	757	32	8	17	294	235	123	110	173	779	361	71	26	25	146	39	20	20	513	131	3	4	140	67	28	101	30	12	5031
	2	2626	559	7	7	2	194	122	75	63	150	616	120	44	7	22	73	34	10	3	272	42		8	62	37	25	66	6	Col	2
	1	1264	102	4	1	3	73	74	136	119	37	99	89	35	7	3	22	7	12	9	259	37	2	2	57	25	22	20	8	Other	351
	Total	14128	2743	89	32	39	1098	753	559	397	592	2215	849	232	64	78	360	118	72	44	1904	496	16	32	392	293	184	403	74	Total	9244
MEAN GRADE		3.24	3.36	3.56	3.56	3.44	3.39	3.25	3.02	2.69	3.16	3.09	3.09	3.03	3.22	3.21	3.11	3.04	3.15	3.02	3.25	3.76	3.01	3.59	3.00	3.57	3.57	3.59	3.20		

Advanced Placement Program®
THE COLLEGE BOARD

NATIONAL TOTAL: FEMALES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

Administration Date: MAY, 1988

Line	Name	AP Grade	Total Exams	American History	Art History	Art Studio Drawing	Art Studio Painting	Biology	Chemistry	Computer Science A	Computer Science AB	English Language and Comp	English Literature and Comp	European History	French Language	French Literature	German Language	Govt and Politics Comparative	Govt and Politics American	Latin Verse	Latin Literature Prose	Math: Calc AB	Math: Calc BC	Music Listening Literature	Music Theory	Physics B	Physics C Mech	Physics C Elec & Mag	Spanish Language	Spanish Literature	Number of Candidates at Each Level	
				Number of Candidates for Each Examination																													
NATIONAL TOTAL		5	23225	3844	264	89	211	1857	393	143	48	1888	6456	574	806	221	190	298	76	132	51	3829	954	18	50	79	75	63	2723	281	54	5254
		4	40542	9558	386	188	252	3348	863	181	54	2644	10292	1719	1079	272	195	948	243	134	56	4819	670	34	82	226	160	103	1786	393	44	44598
		3	65818	11036	664	161	515	3839	1752	348	229	4217	21733	3904	1902	454	447	2002	431	253	134	6342	1074	59	129	593	221	89	2634	576	91	91602
		2	50568	12410	227	108	156	4138	1407	316	151	3775	14763	2149	1203	211	220	1549	419	116	52	3906	494	34	68	373	259	123	1587	234		47
		1	20594	3534	141	19	88	2451	1122	724	503	666	1660	1263	787	122	61	572	251	116	76	4019	492	16	34	436	156	86	1112	87		2443
			280747	39582	1682	485	1222	15653	5537	1712	997	12390	54904	9629	6017	1280	1113	5366	1428	751	369	22115	3684	161	383	1707	871	464	9842	1491		45944
	MEAN GRADE			2.98	2.90	3.20	3.29	3.20	2.87	2.64	2.26	2.01	2.98	3.09	2.81	3.09	3.20	3.21	2.79	2.63	3.07	2.80	2.95	3.30	3.02	3.07	2.50	2.70	2.86	3.35	3.26		
AMER INDIAN/ALASKAN NATIVE		5	34	4	1			1	1			1	15	2	1	1	1					4							2		5	9
		4	79	19				5	1			10	23	3	3			3	1	1		6							3	1	4	144
		3	157	24	2			9	1			13	73	8	3	1		6		1		9	2			1			4		3	233
		2	173	44	1	1	1	14	8	1		21	48	6	5		1	6	2			6	3			1	2		2			
		1	76	16	1			10	6		1	7	4	7	1			1		1		13	1			4		1	2			7
			519	107	5	1	1	39	17	1	1	52	163	26	13	2	2	16	3	3		38	6			6	2	1	13	1		393
	MEAN GRADE			2.46	2.54	2.00	2.00	2.50	2.31	2.00	2.00	1.00	2.56	2.90	2.50	2.00	4.00	3.50	2.69	2.67	2.67		2.53	2.17			1.50	2.00	1.00	3.00	4.00		
BLACK OR AFRO-AMER		5	334	50	6	1		23	7	1	1	15	111	6	36	3	1	4	2	2	2	33	10	1	1	1			15	2	54	131
		4	818	211	5	3	3	83	8	1		45	222	22	35	6	2	13	7	5	2	78	12	1	4	3	3	1	33	10		1999
		3	1979	343	12	8	10	123	48	11	3	119	686	99	62	10	1	59	16	10	3	202	27	1	5	12	1	1	68	19		4223
		2	2863	676	4	4	3	236	64	12	4	217	1136	81	37	10	2	67	19	6	2	186	9		4	8	5	2	63	6		1
		1	2439	425	11	1	5	305	134	62	32	126	465	99	34	2		81	27	8	4	431	20		2	34	16	4	109	2		166
			8433	1725	38	17	21	770	261	87	40	522	2620	307	204	31	4	224	71	31	13	930	78	3	16	58	25	8	288	39		6520
	MEAN GRADE			2.26	2.30	2.76	2.94	2.52	2.07	1.81	1.47	1.38	2.25	2.30	2.20	3.01	2.94	3.33	2.07	2.13	2.50	2.69	2.03	2.70	4.00	2.00	1.70	1.64	1.88	2.24	3.10		
CHICANO/MEXICAN AMERICAN		5	728	25		1	3	6	1			8	47	1	5	1		1		1	1	24	3						598	2	54	144
		4	624	94	4		4	17	10			23	106	10	6	1	2	13			3	42	3			2		1	276	9		1072
		3	937	120	15	2	7	23	19	2	1	76	278	28	24			38	8			76	7			5			162	46		1767
		2	1063	221	4	2	1	46	19	1	1	122	374	38	16	1		58	9			65	5			3	7		45	31		2
		1	541	91	1		1	59	19	12	8	27	86	40	11	1		34	6	1	1	76	5	1		10	5	3	27	16		61
			3893	551	24	5	16	151	68	15	10	256	891	109	62	4	2	144	23	2	3	283	23	1		20	12	4	1108	104		3046
	MEAN GRADE			2.98	2.53	2.85	3.00	3.44	2.11	2.34	1.33	1.30	2.46	2.61	2.10	2.68	3.00	4.00	2.23	2.09	3.00	3.33	2.15	2.74	1.00		1.95	1.50	1.75	4.24	2.52		
ORIENTAL/ASIAN AMERICAN		5	2737	360	28	7	31	342	119	30	10	95	463	59	57	16	11	34	8	18	7	579	277	4	8	22	19	23	92	18	54	665
		4	4218	971	25	18	21	436	200	41	11	219	694	140	91	25	14	121	22	15	8	714	163	1	10	38	39	27	124	38		4654
		3	6180	997	74	15	31	421	396	68	59	312	1422	354	177	38	26	191	38	38	18	802	244	8	9	112	51	23	237	43		7186
		2	4319	988	19	8	7	378	228	61	27	278	977	199	115	17	11	160	42	8	2	418	111	2	4	58	38	22	126	15		3
		1	1920	281	19		4	169	139	123	108	57	114	85	54	13	1	51	26	13	2	391	93	1	1	57	33	24	66	3		181
			19374	3597	165	48	94	1746	1090	323	207	961	3670	837	494	109	63	557	128	84	29	2904	888	14	32	287	180	119	645	109		12689
	MEAN GRADE			3.08	3.04	3.15	3.40	3.72	3.23	2.94	2.36	2.05	3.02	3.11	2.87	2.96	3.13	3.37	2.87	2.84	3.20	3.55	3.23	3.47	3.31	3.63	2.69	2.85	3.03	3.08	3.41		
PUERTO RICAN		5	290	4		1	3	6		1		1	14		2						1	7	2		1				225	22	54	60
		4	210	27	2	1	1	14	5		1	8	29	3	5			2				13	2			1			81	15		295
		3	286	40	3			11	3	1		15	73	11	8	2		5	3	1		19	1			1	1	1	51	36		557
		2	262	53	3	1		22	3	3	2	13	86	8	6	1		9	1			23	2		1		1		12	12		
		1	169	34	1	2		12	2	8	5	8	21	6	6			4	1			37	3	1	1	1	1	1	7	7		15
			1217	158	9	5	4	65	13	13	8	45	223	28	27	3		20	5	1	1	99	10	1	3	3	3	2	376	92		927
	MEAN GRADE			3.16	2.46	2.67	2.60	4.75	2.69	2.85	1.69	1.63	2.50	2.68	2.39	2.67	2.67		2.25	2.40	3.00	5.00	2.29	2.00	1.00	2.67	2.67	2.00	2.00	4.34	3.36		
OTHER HISPANIC/LATIN AMERICAN		5	1272	26	3	3	4	12	2			10	58	5	33	11		4				22	4				1		1026	48	54	195
		4	878	136	6	2	4	34	7	1		39	123	38	32	9		16	5			40	5		1	3		1	272	112		1211
		3	1188	165	17	2	17	57	15	6	3	82	295	57	60	8	2	34	8	1	2	80	10		1	6	3		102	155		2032
		2	943	226	8	2	3	73	23	3	4	82	228	38	25	5	2	41	1	1		69	3	2		5	9	1	29	60		1
		1	457	89	6		2	57	29	10	7	13	27	38	17	5	1	28	2	3	1	75	10			4	2		13	18		87
			4738	642	40	9	30	233	76	28	14	226	731	160	167	38	5	123	16	5	3	286	32	2	2	18	15	2	1442	393		3526
	MEAN GRADE			3.33	2.64	2.80	3.67	3.17	2.45	2.08	1.64	1.71	2.78	2.94	2.64	3.23	3.42	2.20	2.41	3.00	1.60	2.33	2.53	2.69	2.00	3.50	2.44	2.27	3.00	4.57	3.28		
WHITE OR CAUCASIAN		5	15888	2264	195	71	145	1257	231	101	45	884	5258	453	625	183	162	233	63	94	33	2149	564	12	33	48	45	33	564	85	54	3345
		4	30490	7331	231	81	196	2473	549	128	39	2097	8357	1365	792	198	158	719	184	100	36	3596	426	27	57	157	98	59	854	184		33846
		3	50475	8540	471	116	393	2894	1150	232	144	3318	17573	3023	1441	338	383	1539	341	188	104	4743	713	40	104	418	145	58	1812	237		69671
		2	37618	9346	165	82	129	3893	953	214	104	2838	11027	1633	975	152	189	1097	321	93	47	2982	319	26	71	268	184	88	1184	98		35
		1	13645	2405	93	16	69	1690	705	454	318	394	844	884	615	92	56	325	166	84	62	2723	320	12	23	295	93	47	826	34		1589
			148028	29906	1155	366	932	1405	3588	1129	650	9528	43039	7358	4460	933	948	3913	1075	559	282	16133	2342	117	288	1186	565	285	5240	638		108486
	MEAN GRADE			2.98	2.92	3.23	3.30	3.23	2.87	2.62	2.30	2.06	3.03	3.14	2.85	2.96	3.10	3.19	2.86	2.60	3.05	2.76	2.97	3.25	3.01	3.02	2.49	2.68	2.80	2.84	3.29		
OTHER		5	307	37	7	1	3	27	3			8	88	4	27	8	1	4				37	18	1	3	1	3	2	29	3	54	63
		4	445	95	3	1	1	46	7	1		29	104	24	16	7	3	13	3	3	1	41	6		2	3	3	3	24	6		543
		3	675	113	7	2	6	58	19	5	3	49	171	42	26	13	6	31	6	1	1	55	12	2	2	5			38	2		674
		2	526	143	1	2	3	36	23	3	2	33	141	22	14	2	1	25	9	1		34	3		1	8	2		16	1		2
		1	236	38	2		1	21	22	6	3	9	24	15	11		1	12	3		2	44	7		1	5			9			32
			2189	426	20	6	14	188	74	15	8	128	520	107	94	30	12	85	21	5	4	211	46	3	9	22	8	5	116	12		1514
	MEAN GRADE			3.03	2.88	3.60	3.17	3.14	3.12	2.27	2.07	2.00	2.95	3.14	2.81	3.36	3.70	3.17	2.67	2.43	3.40	2.25	2.97	3.54	3.67	3.56	2.41	3.00	4.40	3.41	3.92		
NO RESPONSE		5	1723	274	24	4	22	183	29	10	4	66	438	44	100	28	14	18	3	17	7	154	76		4	7	7	5	172	21	54	642
		4	2788	674	30	10	22	262	68	9	3	174	634	122	99	26	16	45	21	10	8	289	53	5	8	19	17	11	119	26		2834
		3	3941	674	63	16	51	243	101	23	16	236	1162	282	161	44	29	99	19	21	14	356	58	8	8	33	20	6	160	38		5059
		2	2801	693	20	6	9	240	86	18	7	171	746	152	98	23	14	86	15	7	1	203	39	4	7	22	11	10	110	11		3
		1	1111	158	7		6	128	66	41	29	25	75	97	38	9	2	36	20	6	4	229	33	1	6	26	6	6	53	7		305
			12356	2470	144	36	110	1056	350	101	59	672	3047	697	488	130	75	284	78	61	34	1231	259	18	33	107	61	30	614	103		8043
	MEAN GRADE			3.10	3.09	3.31	3.33	3.41	3.13	2.74	2.30	2.08	3.13	3.20	2.80	3.27	3.32	3.35	2.73	2.64	3.41	3.38	2.95	3.39	2.94	2.91	2.62	3.13	2.97	3.40	3.42		

Advanced Placement Program
THE COLLEGE BOARD

CALIFORNIA: ALL CANDIDATES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

MAY, 1988

CODE	NAME	AP GRADE	TOTAL EXAMS	AMERICAN HISTORY	ART HISTORY	ART STUDIO DRAWING	ART STUDIO PAINTING	BIOLOGY	CHEMISTRY	COMPUTER SCIENCE A	COMPUTER SCIENCE AB	ENGLISH LANGUAGE AND COMP	ENGLISH LITERATURE AND COMP	EUROPEAN HISTORY	FRENCH LANGUAGE	FRENCH LITERATURE	GERMAN LANGUAGE	GOVT AND POLITICS AMERICAN	GOVT AND POLITICS COMPARATIVE	LATIN VERGIL	LATIN LITERATURE HORACE	MATH CALC AB	MATH CALC BC	MATH COMPUTER SCIENCE	MATH THEORY	PHYSICS B	PHYSICS C MECH	PHYSICS C ELEC & MAG	SPANISH LANGUAGE	SPANISH LITERATURE	NUMBER OF CANDIDATES AT EACH GRADE
			NUMBER OF CANDIDATES FOR EACH EXAMINATION																												
CALIFORNIA		1	10681	1380	168	19	98	787	284	269	121	379	1688	204	252	26	86	185	47	31	1	1698	746	5	15	163	125	91	1688	61	3177
		2	15277	3994	179	30	102	1178	509	211	75	776	2630	509	281	31	82	639	109	21		1895	341	4	28	241	170	84	1101	147	18204
		3	22532	4036	350	34	171	1169	863	292	249	1348	5720	1078	554	72	167	1218	198	50	1	2090	470	16	24	417	192	67	1444	242	25675
		4	15618	3849	111	31	45	976	506	229	144	1190	4008	478	332	32	75	746	173	28	2	1101	153	9	16	222	193	69	740	120	12
		5	6078	965	70	2	26	493	325	331	334	210	572	247	171	31	9	280	88	25	4	981	156	3	13	216	146	92	340	46	871
TOTAL		Total	70186	14154	878	116	434	4513	2487	1332	923	3903	14618	2516	1590	192	419	3088	607	155	8	7757	1866	37	96	1259	826	403	5313	616	47939
	MEAN GRADE		3.12	3.06	3.38	3.28	3.43	3.21	2.97	2.89	2.46	2.98	3.06	2.98	3.07	2.94	3.38	2.90	2.79	3.03	2.00	3.29	3.73	2.97	3.17	2.93	2.92	3.03	3.58	3.09	
AMER INDIAN/ALASKAN NATIVE		1	28	4	1	1		2		1	1		8	1				1				4							4		10
		2	77	22			2	4		2		7	19	5	2			3		1		5				1			4		109
		3	108	21	1			5	3			7	38	6	2	1		6				6	1			2			9		132
		4	103	35	1			1	4	1	1	10	28	2	1			5		1		6	1			1	1		4		
		5	25	6				1	2		1	3		2	1			1				4				2		1	1		4
		Total	341	88	3	1	2	13	9	4	3	27	93	16	6	1		16		2		25	2			6	1	1	22		255
	MEAN GRADE		2.94	2.81	3.33	5.00	4.00	3.38	2.11	3.75	2.67	2.67	3.08	3.06	2.83	3.00		2.88		3.00		2.96	2.50			2.33	2.00	1.00	3.27		
BLACK OR AFRO-AMER		1	98	15	3	2	1	9		4	3	7	25	1	4		1		1			8	5			2	1	1	4	1	36
		2	161	50	2	1	1	18	3			6	31	2	3	2	2	7	4	1		10	4			2	2	1	8	1	400
		3	388	84	4	1	3	13	12	4	3	15	115	16	10	3		30	7			24	8			5		2	22	7	633
		4	508	136	1	1	1	22	16	4		51	156	8	6			30	5			29	3	1	3	3	2	1	19	2	
		5	329	65	3		1	17	11	5	5	21	73	5	8	1		25	5			49				5	5	2	22	1	29
		Total	1476	350	13	5	7	79	42	17	11	100	400	32	31	6	3	92	22	1		120	20	1	3	17	10	7	75	12	1098
	MEAN GRADE		2.46	2.47	3.00	3.80	3.00	2.75	2.17	2.65	2.64	2.27	2.45	2.56	2.65	3.00	4.33	2.21	2.59	4.00		2.16	3.55	2.00	2.00	2.59	2.20	2.71	2.37	2.92	
CHICANO/MEXICAN AMERICAN		1	885	43			7	6	3	3	1	8	37	3	2	1		1		1		38	4						721	6	199
		2	788	139	4	6	6	25	5	2	1	16	90	16	4		1	26	4			66	1			3	2	3	351	17	1350
		3	1119	197	17	2	9	38	15	9	7	58	260	28	24		2	59	7	1		111	11			7	2	1	200	62	1925
		4	1207	292	9	7	3	43	22	2	4	99	371	28	17	1	1	82	15	1		86	6			8	12	1	54	43	1
		5	614	114	1		2	37	27	12	11	23	103	19	14	1	1	43	8	1		108	11		1	12	12	4	25	24	70
		Total	4613	785	31	15	27	141	72	28	24	204	861	94	61	3	5	211	34	4		409	33		1	30	28	9	1351	152	3545
	MEAN GRADE		3.03	2.62	2.77	2.93	3.48	2.43	2.10	2.36	2.04	2.45	2.52	2.53	2.39	2.67	2.60	2.34	2.21	2.75		2.61	2.42		1.00	2.03	1.79	2.33	4.25	2.59	
ORIENTAL/ASIAN AMERICAN		1	2566	351	30	9	30	258	125	87	27	66	269	43	28	3	5	35	10	4		653	315	1	4	48	43	29	83	18	892
		2	3660	933	28	10	17	335	195	83	30	136	431	91	48		7	147	22	6		678	149		7	78	68	32	111	18	4294
		3	5291	930	75	10	22	337	328	116	102	241	1038	257	97	14	16	253	47	15		710	192	4	5	140	78	33	197	34	5644
		4	3798	877	23	5	7	317	187	89	58	233	834	127	64	10	8	168	43	5	1	359	70	1	1	65	75	37	129	13	1
		5	1730	230	24	1	4	129	132	132	143	50	118	58	21	11	1	63	28	9		302	54		1	63	46	46	58	8	162
		Total	17045	3321	180	35	80	1376	967	507	360	726	2690	576	258	38	37	658	150	39	1	2702	780	6	18	394	310	177	578	81	10995
	MEAN GRADE		3.09	3.09	3.09	3.60	3.78	3.20	2.99	2.81	2.28	2.91	2.96	2.89	2.99	2.32	3.19	2.90	2.62	2.77	2.00	3.38	3.77	3.17	3.67	2.96	2.96	2.78	3.06	3.16	
PUERTO RICAN		1	22	1			1		1						1							4							14		6
		2	29	9				1	1	1	1	1	2	1								3							8	1	41
		3	39	3	2			2	1			4	13	1	1							2					1	1	7	1	48
		4	33	10				1				3	10	1				3	1			2				1			1		
		5	10	4				1					2					1											2		1
		Total	133	27	2		1	5	3	1	1	8	27	3	2			4	1			11				1	1	1	32	2	96
	MEAN GRADE		3.15	2.74	3.00		5.00	2.60	4.00	4.00	4.00	2.75	2.56	3.00	4.00			1.75	2.80			3.82				2.00	3.00	3.00	3.97	3.50	
OTHER HISPANIC/LATIN AMERICAN		1	633	15	1		3	4	3	3	1	2	28	3	5	1		4				14	3			4	1	1	533	12	122
		2	408	81	3		6	17	5	3		10	34	9	6			11	3			24	2				1		164	29	664
		3	555	92	8		8	15	11	2	3	36	138	18	19	2		33	3			42	8		1	7	1	1	68	47	859
		4	428	113	4	1	1	25	18	4	1	32	123	8	8		3	21	3			26	2			2	8		11	22	1
		5	201	49	1			17	7	8	4	4	21	3	9	4		17	1	1		32	5			2	3	1	3	9	48
		Total	2225	350	17	1	18	78	36	20	9	84	328	41	47	7	3	86	10	1		138	20		1	15	14	3	779	119	1686
	MEAN GRADE		3.38	2.71	2.94	2.00	3.61	2.56	2.64	2.45	2.22	2.69	2.72	3.02	2.79	2.14	2.00	2.58	2.00	1.00		2.72	2.80		3.00	3.13	2.21	3.00	4.56	3.11	
WHITE OR CAUCASIAN		1	5411	829	111	7	39	420	119	147	76	262	1104	132	173	17	72	124	34	20	1	831	349	4	9	99	63	46	218	25	1548
		2	8752	2305	123	13	65	640	249	110	38	514	1785	340	191	23	61	388	66	12		965	164	3	16	130	79	39	362	71	9719
		3	13113	2353	213	17	113	650	417	140	121	858	3686	648	336	42	136	734	119	30	1	1028	218	11	18	220	90	25	820	69	14403
		4	8171	2064	65	15	38	478	211	109	69	647	2144	254	206	18	56	395	93	19	1	505	59	6	11	118	86	27	453	32	6
		5	2639	412	36	1	16	165	114	145	144	92	200	131	97	12	6	106	32	13	2	405	80	3	9	113	69	32	201	3	436
		Total	38086	7963	548	53	263	2353	1110	651	448	2373	8999	1505	1003	112	331	1747	344	94	5	3734	870	27	63	680	387	169	2054	200	26112
	MEAN GRADE		3.16	3.13	3.38	3.19	3.31	3.29	3.04	3.01	2.63	3.09	3.18	3.06	3.14	3.13	3.41	3.02	2.93	3.07	2.40	3.35	3.74	2.96	3.08	2.98	2.95	3.24	2.97	3.42	
OTHER		1	240	28	6		2	14	9	4	3	11	40	9	8		3	6	1	1		44	19		2	4	5	1	17	3	53
		2	366	109	3		1	37	11	1		18	69	10	7	1	6	17	2	1		36	4		2	5	2	3	16	5	435
		3	480	92	5	1	2	38	20	4	2	36	113	19	13	4	3	34	3			33	10	1		12	4	1	35	3	551
		4	402	108	1	1	1	25	18	4	3	33	105	7	18	2	1	28	7			23	2		1	7	3	1	16	3	1
		5	155	26	1		1	8	7	9	8	8	24	3	6		1	11	1			18	3		1	6	3	2	8		29
		Total	1643	363	16	2	7	114	65	22	16	106	351	48	44	7	14	88	14	2		154	38	1	6	34	17	8	92	14	1069
	MEAN GRADE		3.08	3.01	3.75	2.50	3.29	3.21	2.95	2.41	2.19	2.92	2.99	3.31	3.02	2.86	3.64	2.85	2.64	4.50		3.42	3.89	3.00	3.50	2.82	3.18	3.00	3.20	3.57	
NO RESPONSE		1	718	94	16		7	74	24	28	9	23	105	12	31	4	5	14	1	5		94	51			6	12	13	94	4	311
		2	1036	256	16		4	101	49	9	5	68	169	35	28	5	5	48	8			108	17	1	3	22	16	6	77	5	1192
		3	1439	264	25	3	14	87	56	17	11	93	327	85	52	6	10	69	12	4		134	22			24	16	3	86	19	1478
		4	976	234	7	1	2	64	38	16	8	82	237	43	28	1	6	58	6	2		65	10	1		17	6	2	53	5	2
		5	375	59	4		2	28	25	28	18	9	31	26	15	2		13	5	1	2	63	3		1	13	8	4	20	3	100
		Total	4544	907	68	4	29	354	183	82	51	275	869	201	158	18	26	186	32	12	2	464	103	2	4	82	58	28	330	36	3083
	MEAN GRADE		3.16	3.10	3.49	2.75	3.41	3.36	3.00	2.91	2.59	3.05	3.09	2.82	3.23	3.44	3.35	2.96	2.81	3.50	1.00	3.23	4.00	3.00	3.25	2.89	3.31	3.79	3.52	3.06	

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Advanced Placement Program®
THE COLLEGE BOARD

CALIFORNIA: FEMALES
AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

MAY, 1980

CODE	NAME	AP GRADE	TOTAL EXAMS	AMERICAN HISTORY	ART HISTORY	ART STUDIO DRAWING	ART STUDIO GENERAL	BIOLOGY	CHEMISTRY	COMPUTER SCIENCE A	COMPUTER SCIENCE AB	ENGLISH LANGUAGE AND COMP	ENGLISH LITERATURE AND COMP	EUROPEAN HISTORY	FRENCH LANGUAGE	FRENCH LITERATURE	GERMAN LANGUAGE	GOVT AND POLITICS AMERICAN	GOVT AND POLITICS COMPARATIVE	LATIN VERGIL	LATIN LITERATURE VERGIL	MATH CALC AB	MATH CALC BC	MUSIC LISTENING AND LITERATURE	MUSIC THEORY	PHYSICS B	PHYSICS C MECH	PHYSICS C ELEC & MAG	SPANISH LANGUAGE	SPANISH LITERATURE	NUMBER OF CANDIDATES AT EACH LEVEL
			NUMBER OF CANDIDATES FOR EACH EXAMINATION																												
		1	4630	530	101	7	59	276	64	21	7	200	1022	75	176	21	48	63	11	15	1	542	289	3	8	22	12	14	1080	35	TOTAL	1419
		2	6997	1665	104	14	64	479	130	26	7	424	1597	217	194	22	42	255	39	7		721	187	3	12	50	24	14	700	80	"	9026
CALIFORNIA		3	11286	1964	207	23	115	546	303	48	38	748	3393	487	483	48	87	516	76	24		890	167	12	12	101	44	10	875	152	"	13621
		4	8236	2130	72	21	31	523	211	35	22	648	2283	260	238	21	32	407	64	11		498	60	6	5	58	69	13	424	74	Col	9
		5	3014	594	50		18	232	149	96	75	118	277	136	102	18	2	174	44	17	3	453	51	2	8	65	59	29	216	26	Other	443
TOTAL		T	34163	6883	534	65	287	2056	857	226	146	2150	8572	1175	1113	130	211	1415	234	74	4	3194	594	26	45	296	208	88	3303	367	Total	24518
	MEAN GRADE		3.06	2.91	3.25	3.11	3.40	3.02	2.71	2.30	1.97	2.96	3.09	2.86	3.09	3.05	3.48	2.74	2.61	2.89	2.00	3.13	3.61	2.96	3.16	2.68	2.33	2.67	3.61	3.07		
		1	13	2	1			1					6									2							1		TOTAL	4
		2	36	7				2				4	14	1	2			2				2							2		"	52
AMER INDIAN/ALASKAN NATIVE		3	59	9	1			2	1			4	23	5	2	1		4				2	1						4		"	71
		4	52	16	1			1	1			7	16	1	1			3				2					1		2		Col	
		5	13	3				1	2			2		2								1						1	1		Other	2
		T	173	37	3			7	4			17	59	9	5	1		9				9	1				1	1	10		Total	129
	MEAN GRADE		2.91	2.70	3.33			3.14	1.75			2.59	3.17	2.56	3.20	3.00		2.89				3.22	3.00				2.00	1.00	3.00			
		1	49	6	2	1		4		1	1	4	16	1	4		1					4	1			1			2		TOTAL	28
		2	90	29		1	1	9				2	25		3	2	1	4	1	1		2	3			1			4	1	"	243
BLACK OR AFRO-AMER		3	212	47	1	1	1	6	7	1		6	74	8	7	2		9	3			12	2			2			19	4	"	397
		4	309	78	1	1		14	9			34	111	4	5			19	2			15				1			13	2	Col	
		5	213	54	2		1	12	7	1		13	48	3	6			21	4			21				2			18		Other	18
		T	873	214	6	4	3	45	23	3	1	59	274	16	25	4	2	53	10	1		54	4			7			56	7	Total	678
	MEAN GRADE		2.37	2.32	2.83	3.50	2.67	2.53	2.00	3.00	5.00	2.15	2.45	2.50	2.76	3.50	4.50	1.92	2.10	4.00		2.13	3.83			2.71			2.27	2.86		
		1	595	16			2	4				5	30		1	1				1			18	1					514	2	TOTAL	114
		2	453	63	3		4	11	2			8	67	7	3		1	9				26				1		1	241	6	"	783
CHICANO/MEXICAN AMERICAN		3	630	94	11	2	5	13	7	2	1	32	170	15	18			30	6			53	6			2			123	40	"	1194
		4	701	166	6	2	1	25	13		1	53	239	15	14	1		46	7			45	3			2	5		30	27	Col	1
		5	347	64	1		1	18	13	6	5	17	61	14	11	1		33	5	1		54	1			4	4	2	15	16	Other	38
		T	2726	403	21	4	13	71	35	8	7	115	567	51	47	3	1	118	18	2		194	11			9	9	3	923	91	Total	2130
	MEAN GRADE		3.09	2.51	2.76	2.50	3.38	2.41	1.94	1.50	1.43	2.48	2.59	2.29	2.34	2.67	4.00	2.13	2.06	3.80		2.54	2.73			2.00	1.56	2.00	4.31	2.46		
		1	924	129	15	1	19	87	35	9	3	20	157	16	15	3	4	15	3	2		287	99	1	3	9	5	4	47	8	TOTAL	342
		2	1536	394	16	5	9	115	61	15	3	72	250	42	34		3	72	11	2		264	44		5	23	10	6	71	9	"	1973
ORIENTAL/ASIAN AMERICAN		3	2436	444	45	5	15	138	136	19	19	128	603	101	64	8	8	98	14	6		294	68	4	4	43	20	8	123	21	"	2727
		4	1867	449	14	3	4	160	86	16	8	128	453	65	43	4	2	91	16	3		154	33	1		15	21	10	79	9	Col	1
		5	783	134	16		3	74	59	37	35	28	48	26	12	6		27	16	7		140	22		1	21	21	14	33	3	Other	82
		T	7546	1558	106	14	50	574	377	96	68	384	1511	250	168	21	17	303	60	20		1059	266	6	13	111	77	42	353	50	Total	5125
	MEAN GRADE		2.99	2.96	3.00	3.29	3.74	2.97	2.81	2.41	1.99	2.85	3.01	2.83	2.98	2.52	3.53	2.86	2.40	2.45		3.23	3.62	3.17	3.69	2.86	2.44	2.43	3.06	3.20		
		1	11	1			1								1							2							6		TOTAL	3
		2	11	3								1	2									2							3		"	20
PUERTO RICAN		3	20	2	1							2	6		1												1	1	5	1	"	29
		4	21	6								2	9	1				2											1		Col	
		5	7	2				1					1					1											2		Other	1
		T	70	14	1		1	1				5	18	1	2			3				4					1	1	17	1	Total	53
	MEAN GRADE		2.97	2.64	3.00		5.00	1.00				2.80	2.50	2.00	4.00			1.67				4.50					3.00	3.00	3.59	3.00		
		1	350	3			1						8		5	1		2											321	9	TOTAL	63
		2	212	34	2		1	6	1			4	17	4	2			4	2			6	1						107	19	"	377
OTHER HISPANIC/LATIN AMERICAN		3	308	58	7		7	7	3			24	81	9	15	2		13	2			16	2			2			38	30	"	497
		4	257	74	4	1	1	13	4	1	1	21	76	5	5		2	9				12	2			1	3		4	16	Col	1
		5	115	32	1			10	3	4	1	1	9	2	6	3		11	1	1		20	2				1		2	5	Other	31
		T	1242	193	14	1	10	36	11	5	2	52	191	20	33	6	2	39	5	1		54	7			3	4		474	79	Total	969
	MEAN GRADE		3.34	2.49	2.71	2.00	3.20	2.25	2.18	1.20	1.50	2.67	2.68	2.75	2.85	2.33	2.00	2.41	3.00	1.00		2.15	2.29			2.67	1.75		4.56	3.14		
		1	2297	333	71	5	29	148	23	9	3	152	716	51	121	12	42	38	7	8	1	272	85	2	4	9	5	9	129	13	TOTAL	675
		2	4054	993	74	8	45	271	57	11	3	201	1081	147	132	17	34	143	22	4		379	49	2	6	20	13	5	216	41	"	4805
WHITE OR CAUCASIAN		3	6655	1145	124	11	72	327	128	23	13	473	2180	294	250	29	74	312	43	15		441	79	7	8	45	18	9	491	44	"	7660
		4	4319	1168	41	12	23	270	71	13	11	362	1194	139	151	13	25	192	34	7		229	18	4	4	33	37	3	249	16	Col	5
		5	1277	257	26		11	95	51	42	30	47	85	74	58	8	1	67	14	7	2	176	24	2	5	33	29	8	124	1	Other	213
		T	18602	3896	336	36	180	1111	330	98	60	1315	5256	705	712	79	176	752	120	41	3	1497	255	17	27	140	102	34	1209	115	Total	13358
	MEAN GRADE		3.10	2.99	3.37	3.17	3.32	3.10	2.79	2.31	1.97	3.10	3.22	2.95	3.15	3.15	3.52	2.86	2.78	2.98	2.33	3.23	3.60	2.00	3.00	2.56	2.29	3.12	2.98	3.43		
		1	97	9	4		1	5	1			3	22	2	6			2				14	9		1	1			15	2	TOTAL	29
		2	166	43	1		1	16	3			13	38	6	4	1	1	8				11	2			1	1	1	12	3	"	208
OTHER		3	241	46	1	1	2	17	9			17	68	11	8	3	2	18	3			13	2	1		3			23	1	"	292
		4	201	49	1	1	1	12	8			17	68	4	5	2	1	14	3			9			1	2			11		Col	
		5	80	16	1			4	4	2		5	14	2	4		1	6				11	1		1	3			5		Other	10
		T	785	163	8	2	5	54	25	2		55	194	25	27	6	5	48	6			58	14	1	3	10	1	1	66	6	Total	539
	MEAN GRADE		3.00	2.88	3.75	2.50	3.40	3.11	2.56	1.80		2.85	2.97	3.08	3.11	2.83	2.60	2.71	2.50			3.14	4.29	3.00	2.67	2.50	4.00	4.00	3.32	4.17		
		1	294	31	8		6	27	5	2		8	67	5	23	4	1	6	1	4		23	14			2	2	1	53	1	TOTAL	169
		2	439	99	8		3	49	6		1	37	103	10	14	2	2	13	3			29	8	1	1	4		1	44	1	"	565
NO RESPONSE		3	725	127	16	3	13	36	12	3	2	54	196	44	38	3	3	32	5	3		59	7			4	5		49	11	"	754
		4	509	124	4	1	1	28	19	5	1	44	125	26	14	1	2	31	2	1		32	4	1		4	2		33	4	Col	1
		5	179	32	3		2	17	10	4	4	5	11	13	5			8	4	1	1	30	1		1	2	4	4	16	1	Other	48
		T	2146	413	39	4	25	157	52	14	8	148	502	98	94	10	8	90	15	9	1	173	34	2	2	16	13	6	195	18	Total	1537
	MEAN GRADE		3.07	2.93	3.36	2.75	3.40	3.26	2.56	2.36	2.00	2.99	3.18	2.67	3.38	3.90	3.25	2.76	2.57	3.56	1.00	2.90	3.80	3.00	2.50	3.08	2.54	2.17	3.44	2.83		

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Advanced Placement Program
THE COLLEGE BOARD

CALIFORNIA: MALES

AP GRADE DISTRIBUTIONS BY TOTAL AND ETHNIC GROUP

NUMBER OF CANDIDATES FOR EACH EXAMINATION

Administration Date: MAY, 1980

CODE	NAME	AP GRADE	TOTAL EXAMS	EUROPEAN HISTORY	ART HISTORY	ART STUDIO (DRAWING)	ART STUDIO (PAINTING)	BIOLOGY	CHEMISTRY	COMPUTER SCIENCE A	COMPUTER SCIENCE AB	ENGLISH LANGUAGE AND COMP	ENGLISH LITERATURE AND COMP	GERMAN LANGUAGE	FRENCH LANGUAGE	FRENCH LITERATURE	SPANISH LANGUAGE	SPANISH LITERATURE	MATH CALC AB	MATH CALC BC	MUSIC THEORY	PHYSICS B	PHYSICS C MECH	PHYSICS C ELEC & MAG	SPANISH LANGUAGE	SPANISH LITERATURE	NUMBER OF CANDIDATES AT EACH LEVEL	
CALIFORNIA		5	5971	850	67	12	31	511	220	248	114	179	666	129	76	5	38	122	36	16		1140	537	2	7	141	113	77	600	26	U.S.	1758
		4	8200	2239	75	16	38	699	379	185	68	352	1033	292	87	9	40	384	70	14		1174	254	1	16	191	146	70	401	47	"	9178
		3	11246	2872	143	11	56	623	560	244	214	600	2327	591	151	24	88	702	122	26	1	1200	383	4	12	316	148	49	569	98	"	12054
		2	7382	1739	39	10	14	453	295	194	122	522	1725	218	94	11	43	359	109	17	2	603	93	3	11	164	124	56	316	46	Cont	3
		1	3064	371	20	2	8	171	176	235	259	92	295	111	69	13	7	106	36	8	1	528	105	1	5	151	87	63	124	20	Other	428
	TOTAL		35943	7271	344	51	147	2457	1630	1106	777	1753	6046	1341	477	62	200	1673	373	81	4	4653	1272	11	51	963	618	315	2010	249	Total	23421
	MEAN GRADE		3.19	3.20	3.30	3.51	3.40	3.38	3.11	3.02	2.56	3.00	3.01	3.00	3.01	2.71	3.28	3.03	2.90	3.16	2.00	3.39	3.79	3.00	3.18	3.01	3.12	3.13	3.52	3.13		
AMER INDIAN/ALASKAN NATIVE		5	15	2		1		1		1	1		2	1				1				2							3		U.S.	6
		4	41	15			2	2		2		3	5	4				1		1		3				1			2		"	57
		3	49	12				3	2			3	15	1				2				4				2			5		"	61
		2	51	19					3	1	1	3	12	1				2		1		4	1			1			2		Cont	
		1	12	3							1	1			1			1				3				2					Other	2
		T	168	51		1	2	6	5	4	3	10	34	7	1			7		2		16	1			6			12		Total	126
	MEAN GRADE		2.90	2.88		5.00	4.00	3.67	2.40	3.75	2.67	2.00	2.91	3.71	1.00			2.86		3.00		2.81	2.00			2.33			3.50			
BLACK OR AFRO-AMER		5	49	9	1	1	1	5		3	2	3	9						1			4	4			1	1	1	2	1	U.S.	14
		4	71	21	2			9	3			4	6	2			1	3	3			8	1			1	2	1	4		"	157
		3	176	37	3		2	7	5	3	3	9	41	8	3	1		21	4			12	6			3		2	3	3	"	236
		2	191	58			1	8	7	4		17	45	4	1			11	3			14	3	1	3	2	2	1	6		Cont	
		1	116	11	1			5	4	4	5	8	25	2	2	1		4	1			28				3	5	2	4	1	Other	11
		T	603	136	7	1	4	34	19	14	10	41	126	16	6	2	1	39	12			66	14	1	3	10	10	7	19	5	Total	420
	MEAN GRADE		2.58	2.70	3.29	5.00	3.25	3.03	2.37	2.57	2.40	2.44	2.44	2.63	2.17	2.00	4.00	2.59	3.00			2.18	3.43	2.00	2.00	2.50	2.20	2.71	2.68	3.00		
CHICANO/MEXICAN AMERICAN		5	290	27			5	2	3	3	1	3	7	3	1			1				20	3						207	4	U.S.	85
		4	335	76	1	6	2	14	3	2	1	8	23	9	1			17	4			48	1			2	2	2	110	11	"	567
		3	489	103	6		4	17	8	7	6	26	90	13	6		2	29	1	1		58	5			5	2	1	77	22	"	731
		2	506	126	3	5	2	18	9	2	3	46	132	13	3		1	36	8	1		41	3			6	7	1	24	16	Cont	
		1	267	50			1	19	14	6	6	6	42	5	3		1	10	3			54	10		1	8	8	2	10	8	Other	32
		T	1887	382	10	11	14	70	37	20	17	89	294	43	14		4	93	16	2		213	22		1	21	19	6	428	61	Total	1415
	MEAN GRADE		2.93	2.75	2.88	3.09	3.57	2.46	2.24	2.70	2.29	2.51	2.39	2.81	2.57		2.25	2.60	2.38	2.50		2.68	2.27		1.00	2.05	1.89	2.50	4.12	2.79		
ORIENTAL/ASIAN AMERICAN		5	1642	222	15	8	11	171	90	78	24	38	112	27	13		1	20	7	2		446	216		1	39	38	25	36	2	U.S.	550
		4	2124	539	12	5	8	228	134	68	27	64	181	49	14		4	75	11	4		414	105		2	55	58	26	40	9	"	2321
		3	2855	486	38	5	7	199	192	97	83	113	435	154	33	6	8	155	33	9		416	124		1	97	58	25	74	13	"	2919
		2	1931	428	9	2	3	157	101	73	50	105	301	62	21	6	6	69	27	2	1	205	37		1	50	54	27	50	4	Cont	
		1	947	96	8	1	1	55	73	95	100	22	78	32	9	5	1	36	12	2		162	32			42	25	32	25	3	Other	80
		T	9499	1771	74	21	30	802	590	411	292	342	1179	326	90	17	20	355	90	19	1	1643	514		5	283	233	135	225	31	Total	5870
	MEAN GRADE		3.17	3.20	3.23	3.81	3.83	3.37	3.11	2.91	2.35	2.97	2.90	2.93	3.01	2.86	2.90	2.93	2.71	3.11	2.00	3.47	3.85		3.60	3.03	3.13	2.89	3.05	3.10		
PUERTO RICAN		5	11						1													2							8		U.S.	3
		4	18	6				1	1	1	1			1								1							5	1	"	21
		3	19	1	1			2	1			2	7	1								2							2		"	19
		2	12	4				1				1	1					1	1			2				1					Cont	
		1	3	2									1																		Other	
		T	63	13	1			4	3	1	1	3	9	2				1	1			7				1			15	1	Total	43
	MEAN GRADE		3.35	2.85	3.00			3.00	4.00	4.00	4.00	2.67	2.67	3.50				2.00	2.00			3.43				2.00			4.40	4.00		
OTHER HISPANIC/LATIN AMERICAN		5	283	12	1		2	4	3	3	1	2	12	3				2				14	3			4	1	1	212	3	U.S.	59
		4	196	47	1		5	11	4	3		4	17	5	4			7	1			18	1				1		57	10	"	287
		3	247	42	1		1	8	8	2	3	12	49	9	4			20	1			26	6		1	5	1	1	30	17	"	362
		2	171	39				12	6	3		11	47	3	3		1	12	3			14				1	5		5	6	Cont	
		1	86	17				7	4	4	3	3	12	1	3	1		6				12	3			2	2	1	1	4	Other	9
		T	983	157	3		8	42	25	15	7	32	137	21	14	1	1	47	5			84	13		1	12	10	3	305	40	Total	717
	MEAN GRADE		3.43	2.99	4.00		4.13	2.83	2.84	2.87	2.43	2.72	2.78	3.29	2.64	1.00	2.00	2.72	2.68			3.18	3.08		3.00	3.25	2.40	3.00	4.55	3.05		
WHITE OR CAUCASIAN		5	3114	496	40	2	10	272	96	138	73	118	468	81	52	5	30	86	27	12		559	264	2	5	98	58	37	89	12	U.S.	873
		4	4698	1312	49	5	20	369	192	99	35	233	784	193	59	6	27	245	44	8		586	115	1	10	110	66	34	146	30	"	4914
		3	6458	1208	89	6	41	323	289	117	108	385	1586	354	86	13	62	422	76	15	1	587	139	4	10	175	72	16	329	25	"	6743
		2	3852	896	24	3	7	208	140	96	58	285	950	115	55	5	31	203	59	12	1	276	41	2	7	85	49	24	204	16	Cont	1
		1	1362	155	10	1	5	70	63	103	114	45	115	57	39	4	5	39	10	6		229	56	1	4	20	40	24	77	2	Other	223
		T	19484	4067	212	17	83	1242	780	553	388	1058	3743	800	291	33	155	995	224	53	2	2237	615	10	36	540	285	135	845	85	Total	12754
	MEAN GRADE		3.22	3.27	3.40	3.24	3.28	3.45	3.15	3.13	2.73	3.07	3.12	3.16	3.10	3.09	3.30	3.14	3.01	3.15	2.50	3.43	3.80	3.10	3.14	3.08	3.19	3.27	2.96	3.40		
OTHER		5	143	19	2		1	9	8	4	3	8	18	7	2		3	4	1	1		30	10		1	3	5	1	2	1	U.S.	24
		4	200	46	2			21	8	1		5	31	4	3		5	9	2	1		25	2		2	4	1	2	4	2	"	227
		3	239	46	4			13	11	4	2	19	53	8	5	1	1	16				20	8			9	4	1	12	2	"	259
		2	201	59				13	10	4	3	16	45	3	5			6	4			14	2			5	3	1	5	3	Cont	1
		1	75	10			1	4	3	7	8	3	10	1	2			5	1			7	2			3	3	2	3		Other	19
		T	858	200	8		2	60	40	20	16	51	157	23	17	1	9	40	8	2		96	24		3	24	16	7	26	8	Total	530
	MEAN GRADE		3.16	3.13	3.75		3.00	3.30	3.20	2.55	2.19	2.90	3.01	3.57	2.88	3.00	4.22	3.93	2.75	4.50		3.59	3.67		4.33	2.96	3.13	2.86	2.88	3.13		
NO RESPONSE		5	424	63	8		1	47	19	18	9	15	38	7	8		4	8		1		71	37			4	10	12	41	3	U.S.	142
		4	597	157	8		1	52	34	9	4	31	66	25	6	3	3	27	5			79	9		2	18	16	5	33	4	"	627
		3	714	137	9		1	51	44	14	9	39	131	41	14	3	7	37	7	1		75	15			20	11	3	37	8	"	724
		2	467	110	3		1	36	19	11	7	38	112	17	6		4	19	4	1		33	6			13	4	2	20	1	Cont	1
		1	196	27	1			11	15	16	14	4	20	13	10	2		5	1		1	33	2			11	4		4	2	Other	52
		T	2398	494	29		4	197	131	68	43	127	367	103	44	8	18	96	17	3	1	291	69		2	66	45	22	135	18	Total	1546
	MEAN GRADE		3.24	3.24	3.66		3.50	3.45	3.18	3.03	2.70	3.12	2.97	2.96	2.91	2.88	3.39	3.15	2.94	3.33	1.00	3.42	4.06		4.00	2.06	3.53	4.23	3.64	3.28		

TEST OF ENGLISH AS A FOREIGN LANGUAGE
July 1, 1988 - June 30, 1989

Report prepared for the California Postsecondary Education Commission

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November 1, 1989

99153. On or before November 15 of each year, the test sponsor shall submit to the Commission all of the following data and information:

(a) Three copies of each version of the test which were disclosed in the prior testing year, along with the corresponding acceptable answers, and the methods used to convert raw scores into the test scores reported to test subjects and test score recipients, together with an explanation of that method.

99153. (a) Enclosed are three copies of each of the test forms used at the (1) October 22, 1988, (2) March 11, 1989, and (3) May 13, 1989 International TOEFL test administrations and three copies of each of the test forms used at the (1) September 16, 1988 and (2) February 10, 1989 Special Center TOEFL test administrations. Also included are cassette recordings of the stimulus material for the listening comprehension section, the correct answers for each test form and the score conversion tables.

These test forms are equivalent to those used at each TOEFL administration, but they are no longer in use as secure tests.

99153. (b) The dates of major or national administration of each test administered by the test agency during the testing year.

(c) The total number of test subjects who have taken the test once, who have taken it twice, and who have taken it more than twice during the testing year.

(d) The total number of test subjects who registered for, but did not take, the test.

(e) The total amounts of fees received from test subjects by the test agency for test for that testing year.

(f) The expenses to the test sponsor of the test, as follows:

(1) Those expenses which are directly attributed to the test.
(2) Those expenses which are indirectly attributed to the test.

(g) A copy of all documents, pamphlets, and literature provided to the test subject and the test score recipient.

(h) Where applicable, the national average test scores, state average test scores, the standard error of measurement, and any other existing information relevant to a comparison of the test scores of the state's test subjects with test scores of previous test subjects of the past five years.

(i) For those tests used to predict academic performance ....

(j) Using available data, the racial, ethnic, and sex breakdown of all test subjects taking each test during the testing year.

(k) If a separate fee is charged test subjects for admissions data assembly service ....

(l) The provisions of this section shall not be construed to require any test agency to submit to the Commission any reports or documents containing information relating to any reports or documents filed with the Commission pursuant to this section.

99153. (b) The dates of major or national administrations of TOEFL are as follows:

The International Testing Program which always tests on a Saturday provides testing six times a year at approximately 1,200 test centers established by ETS throughout the world. Test dates in 1988-89 were: August 6, 1988; October 22, 1988; November 19, 1988; January 14, 1989; March 11, 1989; and May 13, 1989.

The Special Center Testing Program schedules test administrations on Fridays at usually the same test centers as the International program. The program was integrated with the International TOEFL testing program in 1979 to provide monthly testing with alternate Friday and Saturday test dates. Testing was conducted throughout the world in 1988-89 for this program on July 8, 1988, September 16, 1988, December 9, 1988, February 10, 1989, April 14, 1989, and June 2, 1989.

(c) ETS records prepared by the Answer Sheet Scanning Department indicate the Test of English as a Foreign Language (TOEFL) was taken 578,722 times during 1988-89. Of this total 98,615 were answer sheets sent to ETS for scoring under its Institutional Testing programs. It is possible additional test subjects took the TOEFL under this service and the answer sheets were scored by the testing institution. Such test subjects are not recorded at ETS.

Information on the number of times an individual has taken TOEFL during the testing year is collected on the registration form. The information is self-reported and cannot be verified by ETS. Those individuals who applied to take TOEFL during 1988-89 and who provided this information are distributed as follows:

Once during 1988-89	247,693
Twice	121,531
More than twice	200,552

(d) In 1988-89, 85,909 registered for but did not take the TOEFL under the International and Special Center testing programs. Registration records for the Institutional TOEFL Testing Program are kept by the institutions administering the test and are not available to ETS.

(e) The total amount of fees received from test takers during 1988-89 was $23,887,522. No record is available of the amount received from California test takers only. The amount received represents four categories of income as follows:

1. Registration fees paid by individual test subjects.

2. Additional transcripts requested by individual test subjects.

3. Fees paid by institutions for Institutional Administration forms under the Institutional Testing Programs, test forms are distributed directly to the institutions. Individual test subjects for these programs are not registered directly by ETS.

4. Program publications and services ordered by examinees.

(f) (1) Expenses directly attributed to the test (July 1, 1988 - June 30, 1989)

Program Direction	$ 2,382,513
Test Administration and Related Services-International, Special Center, US/Canada and Overseas Institutional Testing Programs	13,382,449
Service-Additional Requests for Transcripts	495,271
Test Development/Production	3,052,854
Publications	2,914,385
Research	261,472
Subtotal	$22,488,944

(2) Expenses indirectly attributed to the test (July 1, 1987 - June 30, 1988).

Policy Council and related activities	175,438
General Research Planning & Coordination	108,182
Development Studies	249,282
Subtotal	$532,902
Total Expenses for TOEFL	$23,021,846

(g) Each TOEFL applicant registering for the International or Special Center program receives a copy of the TOEFL Bulletin of Information. Applicants for the Institutional Testing Program receive a copy of Examinee Handbook and Admission Form.

Test score recipients include the examinees and universities, colleges or other agencies. The examinees receive copies of their score and a TOEFL Request Form for additional Official Score Reports. The colleges, universities and other agencies receive copies of examinees' score reports as designated by the examinee and each test score user receives a copy of the TOEFL Test and Score Manual. Copies of above publications are enclosed.

(h) National average and state average test scores are not available for the TOEFL test, however, information on the standard error of measurement and other statistical characteristics of the test may be found on pages 22-31 in the TOEFL Test and Score Manual.

(i) Not applicable. TOEFL is not used to predict academic performance.

(j) Statistical data by ethnic background is not available. Tables 7 and 8 on page 23 of the Test and Score Manual provide means and standard deviations of test scores by sex. Tables 9 and 10, pages 24 and 25 provide mean score data by national and linguistic background.

(k) TOEFL does not offer admissions data assembly service.

(l) None of the statistical data is individually identifiable.

99154. (a) Within 90 days of the close of each testing year, the test sponsor shall file with the Commission standard technical data sufficient to describe the psychometric quality of the test.

For purposes of compliance with this section, it is sufficient to deposit with the Commission information conforming to the guidelines specified in the Standards for Educational and Psychological Tests of the American Psychological Association, which were in effect 180 days prior to the testing year, and which are appropriate to the particular test and its uses.

(b) Data, reports or other documents submitted pursuant to this chapter shall be accompanied by a description of the test, including, but not limited to, the title, purpose or purposes of the test, and when and where the test was administered in the state.

(c) Data, reports or other documents submitted pursuant to this chapter shall not contain information in a form identifiable with individuals or particular postsecondary educational institutions.

99154. (a) Technical data describing the psychometric quality of the TOEFL tests are included in the enclosed TOEFL Test and Score Manual, pp. 20-31.

(b) A description of the test appears in the TOEFL Test and Score Manual, pp. 7-8. A description of the test and its purpose is also provided each applicant in the 1988-89 Bulletin of Information on page 3, and sample questions are provided on pages 17 through 20; for the Institutional Testing Program this information is in the Examinee Handbook on page 3, with sample questions on pages 10-15.

Lists of the location and dates of all TOEFL test administrations within the state of California during test year 1988-89 are attached. The lists for the International and Special Center test programs are marked "Appendix A." The test sites and test dates for the Institutional testing program are marked "Appendix B."

(c) None of this data is individually identifiable--either by examinee or by institution, except for the test center locations.

99156. A test agency shall prepare a clear, easily understandable written description of each standardized test it administers. A copy of the appropriate description shall be provided to the test subject or the test score recipient together with the test registration forms and related documents, prior to the administration of the test or coinciding with the initial reporting of a test score. The description shall include all of the following information:

(a) The purposes for which the test is constructed and intended to be used.

(b) For those tests used to predict performance, the subject matter included on these tests and the knowledge and skills which the test purports to measure.

(c) Statements designed to provide information for interpreting the test scores, including the explanations of the test, the standard error of measurement, and the correlation between test score and performance.

(d) Statements concerning the effects and uses of test scores, including the following:

(1) If the test score is used by itself or with other information to predict future grade point average, a summary of existing data on the extent to which the use of this test score will improve the accuracy of predicting future grade point average, over and above all other information used.

(2) a summary of existing data on the extent to which the improvement in test scores results from test preparation courses.

(e) A description of the form in which test scores will be reported, and whether the raw test scores will be altered in any way before being reported to the test subject.

(f) A complete description of any promises or covenants which the test agency makes to the test subject with regard to any of the following matters:

(1) The accuracy of scoring.

(2) The time period within which the test subject's score will be reported to the test subject and to the test score recipients.

(3) The privacy of information relating to the test subject, including his or her test scores.

(g) The property interest in the test score held by the test subject, if any.

(h) The period of time the test agency will retain the test score, and the test agency's policies regarding the storage, disposal, and future use of test scores.

(i) A description of all special services which will be provided at the location of the test administration to accommodate handicapped or disabled test subjects.

(j) The policies and procedures of the test agency when there is a delay in reporting the test scores pursuant to Section 91160.

(k) A representative set of sample test items.

(l) The fees to be charged by the test sponsor for various services made available to the test subject.

(m) Each test agency shall comply with the requirements of this section beginning with the start of its testing year which begins after January 1, 1985.

99156. (a) For International or Special Center TOEFL test takers the required information appears on page 3 of the 1988-89 Bulletin of Information under the heading "General Information," and on page 3 of the Institutional Testing Program's Examinee Handbook and Administration Form.

For universities, colleges, and other institutions designated as TOEFL score recipients the required information appears on pp. 7-8 of the TOEFL Test and Score Manual.

(b) Not applicable. TOEFL does not predict performance.

(c) Required information appears on page 11 of the TOEFL Test and Score Manual under the heading "TOEFL Scores," and on pp. 12-13 of the Examinee Handbook under the heading "Test Results."

(d) (1) Required information appears on pp. 14-18 of the TOEFL Test and Score Manual under heading "Using TOEFL Scores," however, TOEFL is not used to predict grade point average.

(2) Required information appears on page 16 in the Bulletin of Information, under the heading "Preparing for and Taking the Test" for those applicants registering for the International/Special Center Testing Program and on page 7 of the Examinee Handbook for the Institutional Testing Program test takers.

(e) Required information on scoring procedures appears on page 12-13 in the International Testing Program Bulletin of Information and on pp. 16-18 of the Institutional Testing Program Examinee Handbook.

(f) (1) Information on Quality Controls appears on page 38 of the Bulletin of Information and on page 19 of the Institutional Testing Program's Examinee Handbook.

(2) Required information regarding the time period for reporting scores is found on page 13 of the Bulletin of Information and Application Form, on page 16 of the Institutional program's Examinee Handbook and under the section of the Institutional Testing Program brochure titled "Summary of Institutional Testing Program Policies."

(3) Required information appears on page 11 of the TOEFL Test and Score Manual under the heading "Confidentiality of Information," in the Handbook for Examinees under the heading "Test Results," and in the Institutional Testing Program brochure under the heading "ETS Policy about Release of Individual Score Information."

(g) Required information appears in the Bulletin of Information on page 13, under the heading "Score Reporting Services," and in the Examinee Handbook on page 16.

(h) Required information appears in the Bulletin of Information on page 13 under heading "Test Score Data," and in the Examinee Handbook on page 23.

(i) Required information appears in the Bulletin of Information on pages 15 and 16.

(j) Required information filed under Paragraph 91160.

(k) Representative sample items appear in the Bulletin of Information, pp. 17-21, under the heading "Practice Questions," and in the Examinee Handbook, pp. 10-15.

In addition, during 1988-89 TOEFL examinees and others had access to other test forms and related materials via the following program services:

a. TOEFL Sample Test (equal to one-half the length of a TOEFL test form). Available to anyone at $3 per copy.

b. Test materials from selected administrations. These include a copy of the test book and the cassette, the correct answers to the questions and a copy of the examinee's answer sheet with the raw scores marked. (Available to TOEFL examinees only who took the September, and October 1988 and February, March, and May 1989 administrations.)

c. Understanding TOEFL. A complete test form with cassette for Section 1, an answer sheet, and a workbook providing an explanation for each question and set of answers. Available to applicants for $11 with the test fee or $13 on a separate order.

d. Listening to TOEFL. Listening to TOEFL focuses on Section 1, the listening comprehension section of the test. It contains a workbook and three cassette recordings. The kit also contains two complete TOEFL tests, answer sheets and lists of the correct answers for all of the questions. Available to applicants for $11 with the test fee or $13 on a separate order.

e. Reading for TOEFL. A study kit that focuses on Section 3, Vocabulary and Reading Comprehension. There are 120 practice questions from reading Passages and 120 vocabulary questions from actual TOEFL tests. In addition, this test kit contains two full-length TOEFL tests and a cassette recording which contains the stimulus material for the listening comprehension sections of the two TOEFL tests. The costs is $11 if ordered with test fee or $13 on a separate order.

99157. This section does not apply to the Test of English as a Foreign Language.

99158. If the test agency will be delayed in reporting a test subject's score for a time period amounting to 10 calendar days beyond the period specified in paragraph (2) of subdivision (f) of Section 99156, the test agency shall notify the test subject immediately. The notice shall indicate the reasons for delay, including, but not limited to, incorrect, incomplete, or inconsistent personal identifying information furnished by a test subject.

99158. The Bulletin of Information, page 12, states that "test results will be sent ... one month after you take the test. Under no circumstances can they be sent any earlier. In addition a chart on the back cover lists the test date, registration closing dates and mailing dates for the score reports. (Test results will be sent out two or three weeks later for examinees whose answer sheets arrive late at the TOEFL office or whose answer sheets are not completed properly.)

99159. The test agency shall establish a formal panel composed of test agency officials to review and decide cases of suspected test score....

Test takers, their parents or guardians and others who advise them are entitled to know why certain scores have been questioned and the procedures used by Educational Testing Service to verify or invalidate such scores.

ETS Test Security office provides for a formal panel composed of test agency officials and senior measurement staff who review and decide cases of suspected test score inauthenticity or irregularities. Brochures explaining the ETS test security procedures are sent to examinees whose scores are questioned (sample brochure titled "Procedures for Questioned Scores" is included with this report).

99160. (a) Whenever a test agency is presented with information which renders the test subject's test score suspect, whether that information is in the form of allegations collusion or cheating, or irregular test administration, or irregular statistical data, or any other form. The test agency shall submit the information to the review panel. The panel shall be responsible for reviewing the information and determining if an investigation is warranted.

(a) Information for examinees about the policy of cancelling TOEFL test scores is provided on pages 9, 13, and 14 of the 1988-89 Bulletin of Information. If the test score is referred to the ETS Test Security office for validation and review by the formal panel, a letter and Test Security office brochure is sent to the examinee via registered mail. Every opportunity is provided to the examinee to prepare a rebuttal.

(b) The test subject shall have 30 days following receipt of the notice by registered mail to respond to the notice of inauthenticity.

(b) ETS allows a minimum of 30 days for a test subject to respond following receipt of a registered mail notice of inauthenticity.

(c) If the test subject responds to the notice of inauthenticity or irregularity of test scores sent by the test agency within the time period specified by subdivision (b), the test agency shall review the contents of the response and comply . . . . . .

(c) The procedures for each of these requirements are described on p. 13 of the Bulletin of Information and in the ETS pamphlet, Procedures for Questioned Scores.

(d) The test agency shall not release confidential information to any authorized test score recipients regarding a test subject under pending investigation, unless authorized to do so by the test subject.

(d) Reviews of questionable scores by ETS are confidential; ETS does not release information about a questioned score to anyone unless authorized to do so by the test subject.

BEST COPY AVAILABLE

(e) The test agency shall immediately release the test score to e test subject and the test score recipients where no substantial idence exists to render the inauthenticity or irregularity of the test ore.

(e) TOEFL scores held during the investigation are released immediately upon a determination that no substantial evidence exists to render the test score inauthentic or irregular.

Graduate Record Examinations Board
PRINCETON, NEW JERSEY 08541-6000 • AREA CODE 609 734-1105

IN AFFILIATION WITH
The Association of Graduate Schools
The Council of Graduate Schools

1989
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•
Charlotte V. Kuh
Secretary to the Board

November 14, 1989

Mr. Kenneth B. O'Brien
1020 Twelfth Street
California Postsecondary
Education Commission
Sacramento, CA 95814

Dear Mr. O'Brien:

Forwarded herewith pursuant to the revised California Education Code, Senate Bill No. 1758, Chapter 1505, Part 65 Chapter 3, Sections 99152-9959 is information concerning administrations of the Graduate Record Examinations during the 1988-89 testing year which ended on September 30, 1989.

Enclosed are the following 1988-89 publications and reports referred to in this report:

- GRE Information Bulletin 1988-89
- Guide to the Use of the Graduate Record Examinations Program 1988-89
- Interpreting Your GRE General Test Scores 1988-89
- GRE General Test, Edition GR87-10 (3 copies)
- GRE General Test, Edition GR87-11 (3 copies)
- GRE General Test, Edition GR87-12 (3 copies)
- GRE Technical Manual
- General Test, Test Analysis Forms 3HGR1, 3IGR4, 3JGR2
- GRE/MGSLS Publications List and Order Form
- Order Form for the 1988-89 Information Bulletin
- Effects of Coaching on GRE Aptitude Test Scores, GREB Report 81-3R
- Effects of Test Preparation on the Validity of GRE Analytical Scores, GREB Report 82-6aP
- Test Preparation for the GRE Analytical Ability Measure: Differential Effects for Subgroups of GRE Test Takers. GREB Report 82-6bP

Mr. Kenneth B. O'Brien November 14, 1989

- Descriptive booklets for all Subject Tests
- Tables from Validity of the GRE: 1988-89 Summary Report
- Procedures for Questioned Scores
- Tables from Examinee and Score Trends for the GRE General Test: 1977-78, 1986-87, and 1987-88.
- Report of Students who have repeated the General Test and Subject Tests once, twice, or more than twice

The Graduate Record Examinations Board has delegated to Educational Testing Service, Princeton, NJ 08541, the specific duty of publication and distribution of copies of these materials.

Sincerely,

Jasper D. Memory Jr

Jasper D. Memory
Chairman, GRE Board

MBS/jak

Enclosures

cc: Mr. Robert A. Altman, Educational Testing Service
Ms. Charlotte V. Kuh, Educational Testing Service
Mr. Stanford von Mayrhauser, Educational Testing Service

Graduate Record Examinations Program

October 1, 1988 - September 30, 1989

Report prepared for the California
Postsecondary Education Commission

November 1989

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99153

99153. On or before November 15 of each year, the test sponsor shall submit to the Commission all of the following data and information:

(a) Three copies of each version of the test which was disclosed in the prior testing year, along with the corresponding acceptable answers, and the methods used to convert raw scores into the test scores reported to test subjects and test score recipients, together with an explanation of that method.

(a) Attached to this report are three versions of the GRE General Test which were used in the most recent testing year, an answer key for each and explanation of the scoring of these tests. Also attached are copies of the test analysis reports for these test forms.

99153. (b) The dates of major or national administration of each test administered by the test agency during the testing year.

(b) Dates of the major administrations for the Graduate Record Examinations are included in the calendar on the back cover of the enclosed GRE 1988-89 Information Bulletin and the Guide to the Use of the Graduate Record Examinations Program 1988-89.

99153. (c) The total number of test subjects who have taken the test once, who have taken it twice, and who have taken it more than twice during the testing year.

(c) The number of examinees who have taken the GRE tests once, twice, or more than twice is attached as a separate report.

99153. (d) The total number of test subjects who registered for, but did not take, the test.

(d) **The total number of registrants for major GRE administrations of all General and Subject Tests in 1988-89 was 421,848. Of these registrants, 55,771 did not take the tests.**

In California, there were 35,782 registrants for all GRE General and Subject Tests. Of these, 5,917 did not take the tests.

99153. (e) The total amounts of fees received from test subjects by the test agency for the test for that testing year.

(e) **Total fees received from test subjects (test takers) for the Graduate Record Examinations for 1988-89 equalled $21,745,495. No record is available of the amount received from California test takers only; nor are records available for receipts by test title. The amount received represents four categories of income, as follows:**

1. **Registration fees paid by individual test subjects.**
2. **Additional transcripts requested by individual test subjects.**
3. **Fees paid by institutions for institutional services.**
4. **Program publications and services ordered by examinees.**

99153. (f) The expenses to the test sponsor of the test, as follows: (1) the expenses which are directly attributable to the test and (2) those expenses which are indirectly attributable to the test.

(f) (1.) **Expenses directly attributable to the test and**

(2.) **Expenses indirectly attributable to the test required by this section are as follows:**

Income

Fees from Test Takers for GRE Tests	$19,313,963
Fees for Priced Publications	1,700,415
Fees for Institutional Services	731,117
Total	$21,745,495

	General	Subject
Expenses Directly Attributable	$16,968,479	$7,135,845
Test Administration	$10,034,119	$3,344,706
Program Direction	1,846,304	615,435
Test Development	2,579,662	2,339,573
Research	675,999	225,333
Publications	1,832,395	610,798
Expenses Indirectly Attributable	$529,151	$176,384
Special Services	395,424	131,808
GRE Board and Committees	133,151	44,576

Expenses Not Attributable	$906,329
Graduate Program Self-Assessment	52,414
CGS/GRE Survey	84,124
Directory of Graduate Programs	181,185
Minority Graduate Student Locator Service	147,799
GRE/CGS Forums	132,643
Technical Manual	69,321
Outcomes Assessment	238,843

99153. (g) A copy of all documents, pamphlets, and literature provided to the test subject and the test score recipient.

(g) (1.) Attached to this report are copies of each document, pamphlet, and literature provided to each test taker. These are:

GRE Information Bulletin 1988-89

Interpreting Your GRE General Test Scores 1988-89

A sample Report of Scores (found on pages 52 and 53 of the Guide to the Use of the Graduate Record Examinations Program)

(g) (2.) A copy of each document, pamphlet, and literature provided to each test score recipient are attached to this report. These are:

Guide to the Use of the Graduate Record Examinations Program - 1988-89

GRE 1988-89 Information Bulletin

GRE/MGSLS Publications List and Order Form - 1988-89

Order Form for the 1988-89 Information Bulletin Gradate Record Examinations and Minority Graduate Student Locater Service

Samples of score reporting forms located on pages 51-53 of the Guide

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99153. (h) Where applicable, the national average test scores, state average test scores, the standard error of measurement, and any other existing information relevant to a comparison of the test scores of the state's test subjects with test scores of previous test subjects of the past five years.

(h) GRE average scores are for the test-taking population reported on page 15 of the Guide to the Use of the Graduate Record Examinations Program 1988-89. The standard error of measurement for individual scores and score differences are reported on page 33. The results of all administrations of all forms or editions of a given test are reported on the same scale. National and state average test scores are neither gathered nor reported.

99153. (i) For those tests used to predict academic performance, the most recent national or regional aggregation of data concerning the predictive validity of all of the following:

(1) Academic record or grades alone.
(2) Standardized test score alone.
(3) Academic record and test score combined.
(4) Standardized test scores over and above the predictive validity of academic record alone.

(i) (1-4) Validity of the GRE: 1988-89 Summary Report (in press) table copies attached.

99153. (j) Using available data, the racial, ethnic, and sex breakdown of all test subjects taking each test during the testing year.

(j) Racial, ethnic and sex information is self-reported by test takers and is not always provided to the GRE Program.
Available ethnic data for GRE test takers are reported in the Guide to the Use of the Graduate Record Examinations Program 1989-89, Tables 5 and 6A, pages 25-26. Racial, ethnic and sex information is reported in various tables throughout Examinee and Score Trends for the GRE General Tests: 1977-78, 1982-83, 1986-87, and 1987-88 (in press) table copies attached.

99153. (k) If a separate fee is charged test subjects for admissions data assembly service, the test sponsor shall report information concerning the data assembly service in substantially the same form as would be required for a test under this section.

(k) Not Applicable.

99153. (l) This section shall not be construed to require any test agency to submit to the commission any reports or documents containing information relating to any individual test subject. Any information relating to any individual test subject. Any information relating to any individual test shall be deleted or obliterated from any reports or documents filed with the commission pursuant to this section.

(l) Information submitted in compliance with this section does not include information identifiable with any individual or institution.

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99154

99154. (a) Within 90 days of the close of each testing year, the test sponsor shall file with the Commission standard technical data sufficient to describe the psychometric quality of the test.

For purposes of compliance with this section, it is sufficient to deposit with the Commission information conforming to the guidelines specified in the Standards for Educational and Psychological Tests of the American Psychological Association, which were in effect 180 days prior to the testing year, and which are appropriate to the particular test and its uses.

(a) Technical data describing the psychometric quality of the tests are included in the Guide to the Use of the GRE Program and the GRE Technical Manual.

99154. (b) Data, reports or other documents submitted pursuant to this chapter shall be accompanied by a description of the test, including, but not limited to, the title, purpose or purposes of the test, and when and where the test was administered in the state.

(b) A description of the purposes of the tests and when and where they are administered in California is included in the GRE Information Bulletin.

99154. (c) Data, reports or other documents submitted pursuant to this chapter shall not contain information in a form identifiable with individuals or particular postsecondary educational institutions.

(c) Information submitted with this section does not include data identifiable with any individual or institution.

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99156

99156. A test agency shall prepare a clear, easily understandable written description of each standardized test it administers. A copy of the appropriate description shall be provided to the test subject or the test score recipient together with the test registration forms and related documents, prior to the administration of the test or coinciding with the initial reporting of a test score. The description shall include all of the following information:

(a) The purposes for which the test is constructed and intended to be used.

(a) The purposes for which the test are constructed are described on page 4 of the GRE Information Bulletin.

99156. (b) For those tests used to predict performance, the subject matter included on these tests and the knowledge and skills which the test purports to measure.

(b) The subject matter of and knowledge and skills measured by the GRE General Test and GRE Subject Tests is described on page 4 of the GRE Information Bulletin.

99156. (c) Statements designed to provide information for interpreting the test scores, including the explanations of the test, the standard error of measurement, and the correlation between test score and performance.

(c) For information to assist in interpreting test scores, see the GRE Information Bulletin, page 23, student score leaflet, Interpreting Your GRE General Test Scores 1988-89; the Guide, pp. 11-28; the GRE Subject Test Description Booklets, page 5; the GRE Technical Manual.

99156. (d) Statements concerning the effects and uses of test scores, including the following:

(1) If the test score is used by itself or with other information to predict future grade point average, a summary of existing data on the extent to which the use of this test score will improve the accuracy of predicting future grade point average, over and above all other information used.

(d) (1) **The 1981-82 Summary Report of the Graduate Record Examinations Validity Study Service is attached to this report.**

(2) A summary of existing data on the extent to which the improvement in test scores results from test preparation courses.

(2) **See the attached research reports: (1) GREB Report 81-3R, Effects of Coaching on GRE Aptitude Test Scores; (2) GREB Report 82-6aP, Effects of Test Preparation on the Validity of the GRE Analytical Scores; (3) GREB Report 82-6bP, Test Preparation of the GRE Analytical Ability Measure: Differential Effects for Subgroups of Test Takers.**

99156. (e) A description of the form in which test scores will be reported, and whether the raw test scores will be altered in any way before being reported to the test subject.

(e) **For the form in which test scores will be reported see the GRE Information Bulletin, p. 20-22.**

99156. (f) A complete description of any promises or covenants which the test agency makes to the test subject with regard to any of the following matters:

(1) The accuracy of scoring.

(1) **For a description of the accuracy of scoring, see GRE Information Bulletin, p. 18.**

(2) The time period within which the test subject's score will be reported to the test subject and to the test score recipients.

(2) **For the time period within which scores will be reported, see GRE Information Bulletin, p. 20.**

(3) The privacy of information relating to the test subject, including his or her test scores.

(3) For information about the privacy of information, see GRE Information Bulletin, p. 21.

99156. (g) The property interest in the test score held by the test subject, if any.

(g) For information about property interest, see GRE Information Bulletin, p. 21.

99156. (h) The period of time the test agency will retain the test score, and the test agency's policies regarding the storage, disposal, and future use of test scores.

(h) For the retention of scores and use of scores, see GRE Information Bulletin, p. 20-22.

99156. (i) A description of all special services which will be provided at the location of the test administration to accommodate handicapped or disabled test subjects.

(i) For a description of handicapped services, see GRE Information Bulletin, p. 11.

99156. (j) The policies and procedures of the test agency when there is a delay in reporting the test scores pursuant to Section 91160.

(j) For the policies concerning delay in scores, see GRE Information Bulletin, p. 20.

99156. (k) A representative set of sample test items.

(k) For a sample General Test and sample questions, see pages 28-72, GRE Information Bulletin. For samples of the Subject Tests, see the descriptive booklets for each test.

99156. (l) The fees to be charged by the test sponsor for various services made available to the test subject.

(l) For test fees, see GRE Information Bulletin, pp. 4, 10, and 96.

99156. (m) Each test agency shall comply with the requirements of this section beginning with the start of its testing year which begins after January 1, 1985.

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99157 & 99158

99157. This section does not apply to the Graduate Record Examinations Program.

99158. (a) If the test agency will be delayed in reporting a test subject's score for a time period amounting ot 10 calendar days beyond the period specified in paragraph (2) of subdivision (f) of Section 99156, the test agency shall notify the test subject immediately. The notice shall indicate the reasons for delay, including, but not limited to, incorrect, incomplete, or inconsistent personal identifying information furnished by a test subject.

(a) The procedure for notifying test subjects and score users of any delay in submitting scores is described on page 20 of the GRE Information Bulletin.

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99159

99159. (a) through (d) Whenever a test agency is presented with information which renders the test subject's score suspect. . . .

(a) through (d) Test takers, their parents, and others who advise them are entitled to know why certain scores have been questioned and the procedures used by Educational Testing Service (ETS) to verify or invalidate such scores. The pamphlet intended to provide information to test takers about why their scores have been questioned, Procedures for Questioned Scores, is attached.

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99160

99160. (a) Whenever the test agency determines that substantial evidence exists to support cancellation or invalidation of a test score, the test agency shall provide the test subject with a choice of the following options:

(1) A cancellation of the test scores in question, with full refund of all test fees.
(2) Opportunity to take the test again privately and without charge.
(3) Opportunity to seek judicial review of the matter.

(a) Information for test takers concerning the procedures used in cancelling questioned scores is found on page 21 of the GRE <u>Information Bulletin</u> and in the pamphlet, <u>Procedures for Questioned Scores.</u>

(b) The test subject shall have 30 days following receipt of the notice by registered mail to respond to the notice of inauthenticity.

(b) ETS provides up to six weeks for a subject to respond to a notice of score inauthenticity.

99160. (c) If the test subject responds to the notice of inauthenticity or irregularity of test scores sent by the test agency within the time period specified by subdivision (b), the test agency shall review the contents of the response and comply . . . . . .

(1) through (3) **The procedures for each of these requirements are described on p. 20 of the GRE Information Bulletin and in the ETS pamphlet, Procedures for Questioned Scores.**

99160. (d) The test agency shall not release confidential information to any authorized test score recipients regarding a test subject under pending investigation, unless authorized to do so by the test subject.

(d) **Reviews of questionable scores by ETS are confidential; ETS does not release information about a questioned score to anyone unless authorized to do so by the test subject.**

99160. (e) The test agency shall immediately release the test score to the test subject and the test score recipients where no substantial evidence exists to render the inauthenticity or irregularity of the test score.

(e) **GRE scores held during investigation are released immediately upon a determination that no substantial evidence exists to render the test score inauthentic or irregular.**

GRADUATE RECORD EXAMINATIONS

October 1, 1988 - September 30, 1989

Report prepared for
California Postsecondary Education Commission
in compliance with
Part 65 of the Education Code, Chapter 3, Section 99161

99161. (a) No test agency shall release or disclose any test score identifiable with any individual test subject, in any form whatsoever, to any test score recipient, unless the agency is specifically authorized by the test subject to release that test score to the recipient. A test agency may, however, release all scores received by a test subject on a test to anyone designated by the test subject to receive the test score.

(a) The confidentiality of GRE scores is described for GRE score users on page 9 of the Guide to the Use of the GRE Program. Page 21 of the GRE Information Bulletin provide test takers with information about confidentiality GRE scores.

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Graduate
Management
Admission
Council

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November 1, 1989

Mr. Kenneth B. O'Brien
Executive Director
California Post-Secondary
Education Commission
1020 12th Street
Sacramento, California 95814

Dear Mr. O'Brien:

On behalf of the Graduate Management Admission Council, the sponsor of the Graduate Management Admission Test, I am pleased to submit the information required under Chapter 1505 of the laws of the state of California; Chapter 3, Part 65 of the Education Code, Sections 99150-99164.

Respectfully,

W Broesamle

William Broesamle
President

Enclosures:

1) October 1988, January 1989, March 1989 and June 1989 GMATs and Answer Keys (3 copies each)
2) GMAT TECHNICAL REPORT
3) GMAT 1988-89 BULLETIN OF INFORMATION
4) GMAT EXAMINEE SCORE INTERPRETATION GUIDE
5) GUIDE TO THE USE OF GMAT SCORES
6) PROCEDURES FOR QUESTIONED SCORES
7) STATISTICAL DATA (COMPUTER PRINT-OUTS)

/ps
kag-8-5

Reply to:
Los Angeles
Princeton

Graduate Management Admission Council

99153

(a)(b) Enclosed are three (3) copies each of the actual Graduate Management Admission Tests administered on the regular national administration dates:

October 15, 1988 (test code 78)
January 28, 1989 (test code 80)
March 18, 1989 (test code 81)
June 17, 1989 (test code 82)

Also included are scoring keys and explanatory materials.

(c) During 1988-89, 221,455, individuals took the GMAT. The numbers of individuals who took it once, twice and more than twice during the year are not available .

(d) During 1988-89, 59,800 individuals registered for but did not take the GMAT.

Section 99153 - Financial information. Definitions are provided on the following page.

(e) Total amount of fees received from test takers:

1. GMAT Testing Program	$9,712,600
2. Guides to GMAT/MBA	1,357,600
3. MBA Admission Forums	46,700
Total income from test takers	$11,116,900

(f)(1) Expenses directly attributable to the testing program:

4. GMAT Test Administration	$8,155,900
5. GMAT Test Development	1,057,600
6. GMAT Validity Studies and Test Research	470,200
Total expenses directly attributable to the testing program	$9,683,700

(f)(2) Expenses indirectly attributable to the testing program:

7. Institutional Programs and Council Administration	$2,242,200
8. Guides to GMAT/MBA	1,033,700
9. MBA Admission Forums	304,500
10. Other Publications and Programs for Prospective MBA Candidates	552,800
Total expenses indirectly attributable to the testing program	$4,133,200
Total Council Expenses	$13,816,900

Definitions of the financial information reported by the Graduate Management Admission Council pursuant to Section 99153.

Line 1 Fees received from test takers for the testing program include fees for the test registration and basic score reporting service. Additional score reports may be purchased by candidates for an additional fee. Other service fees are for late registrations, supplementary test centers, foreign test center surcharges, test center changes, test disclosure materials, and hand rescoring services.

Lines 2 and 8 Revenue and expense for the GUIDE TO MBA and the GUIDE TO GMAT are from sale and production of these two publications. The GUIDE TO MBA includes a section about graduate study in management, careers, and descriptions of more than 500 different MBA programs. The GUIDE TO GMAT contains sample questions from previously administered Graduate Management Admission Tests, with correct answers and explanations provided and a math review section. A software version of the GMAT Guide was introduced in fiscal 1986-87.

Lines 3 and 9 Revenues from the MBA Admission Forums are received from students who attend these events, which gather representatives from the admissions offices of over 75 graduate schools of management in a single location to facilitate the exchange of information with prospective applicants and to provide an opportunity for students to ask questions about the GMAT. Expenses are incurred for planning and operating these programs.

Line 4 Expenses incurred for test administration include all expenses of test registration, test center administration, test related publications and mailings including test disclosure materials, computer scoring and reporting, statistical analysis, clerical responses to inquiries, and quality assurance.

Line 5 Expenses for test development in 1988-89 include all expenses incurred for item writing, pretesting, and compilation of test forms, as well as statistical analysis for new test development. These are not the costs of the complete development of any one or more test forms, as the lead time to develop a test form is often 24 months. The test development cost incurred in any single year are for various phases of the development of several different forms.

Line 6 Expenses are incurred for research concerning various aspects of the GMAT, development, storage, and reporting of technical data and candidate information about the test, and research on the validity of the test performed for individual management schools.

Line 7 Expenses included in this line are incurred for development and operation of admissions services for institutions which are broader than those projects included in #6 above. This item also includes expenses for the operations of the Graduate Management Admission Council which are necessary for it to maintain its active role in graduate management education, and responsibility for policy and direction of the testing program. It also includes expenses for education and professional development of admissions officers, the primary user of the test.

Line 10 Expenses are incurred for publications and programs provided without charge for prospective MBA candidates. These include publications concerning financial aid and information for international students, and programs to promote awareness of graduate management education among members of minority groups.

(g) Enclosed are copies of the GMAT BULLETIN OF INFORMATION, GMAT EXAMINEE SCORE INTERPRETATION GUIDE, and THE GUIDE TO THE USE OF GMAT SCORES.

(h) The mean GMAT scaled score appears in Table 2 of the EXAMINEE SCORE INTERPRETATION GUIDE. The standard error of measurement for the GMAT total score for recent forms is about 26; this information also appears with an explanation in the EXAMINEE GUIDE. Information concerning California test-takers is contained in the enclosed computer print-outs.

(i)(1) (2)(3) (4) The required information appears in the publication GMAT EXAMINEE SCORE INTERPRETATION GUIDE, distributed to all test subjects with their score report. It also appears on page 11 of THE GUIDE TO THE USE OF GMAT SCORES, distributed to all institutional score recipients.

(j) This data is included in the enclosed computer print-outs.

(k) This section is not applicable.

(l) None of these data are individually identifiable.

99154

(a) A copy of the GMAT TECHNICAL REPORT (copyright 1986) containing the required data is enclosed.

(b) A description of the test including title and purpose of the test, is contained in the GMAT 1988-89 BULLETIN OF INFORMATION for candidates, page 4. A schedule of locations and dates of test administrations in California appears on page 26 of the BULLETIN.

(c) None of these data are individually identifiable.

99156

(a) This information is contained in the BULLETIN on pages 4 and 14.

(b) This information appears on page 4 of the BULLETIN.

(c) The EXAMINEE SCORE INTERPRETATION GUIDE contains this information.

(d)(1) This information is contained in the GMAT EXAMINEE SCORE INTERPRETATION GUIDE and in THE GUIDE TO THE USE OF GMAT SCORES on page 11.

(2) The Graduate Management Admission Council is not aware of any existing data on this subject. This is stated in the BULLETIN on page 12.

(e) This description appears on page 14 of the BULLETIN.

(f)(1) These descriptions appear on pages 14 and 15 of the BULLETIN.
(2)(3)

(g) This is described on page 14 of the BULLETIN.

(h) This is described on page 14 of the BULLETIN.

(i) Special services provided for handicapped or disabled test subjects are explained on page 10 of the BULLETIN.

(j) The policies and procedures in these situations are described on page 16 of the BULLETIN.

(k) A representative set of sample test items appear on pages 17, 18, 19, and 22 of the BULLETIN.

(l) Fees for various services are listed on the back cover of the BULLETIN.

99157
(a)(b) Test disclosure services are described on page 13 of the BULLETIN.
(c)(d)
(e)(f)

99158 Such a policy is in effect for the GMAT program.

99159
(a)(b) The procedures followed are described in ETS PROCEDURES
(c)(d) FOR QUESTIONED SCORES.
and
99160
(a)(b)
(c)(d)
(e)(f)
(g)

99161 The GMAC policy in this regard is articulated on page 14 of the BULLETIN.

NWB/ps
10/31/89
kag-8-5

Law School Admission Services

Box 40
Newtown, PA 18940-0040

Test Development and
Research Division

215.968.1207
FAX 215.968.1169

December 7, 1989

Dr. Horace F. Crandell
Postsecondary Education Administrator
California Postsecondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814

Re: Law School Admission Council/Law School Admission Services
Sponsor of the Law School Admission Test

Dear Dr. Crandell:

I submit herewith material reflective of Law School Admission Council/Law School Admission Services' compliance with Chapter 3 of Part 65 of the Education Code of California (the "Act"), as it pertains to the Law School Admission Test, a standardized test as described in the Act. These submissions comprise Law School Admission Council/Law School Admission Services' filing under Section 99153 and 99155 of the Act.

Information required by Section 99153 is reported below for the program year ending June 30, 1989, with reference to applicable subsections of the Act.

Section 99153 (a). Three copies of each version of the test which was disclosed in the prior test year, along with the corresponding acceptable answers, and the methods used to convert raw scores into the test scores reported to test subjects and test score recipients, together with an explanation of that method.

Section 99153 (b). The dates of major or national administration of each test administered during the testing year:

June 13, 1988
October 1, 1988
December 3, 1988
February 11, 1989.

Section 99153 (c). The total number of test subjects who have taken the test once: 107,288; who have taken the test twice: 13,999; and who have taken it more than twice: 691 during the testing year.

Section 99153 (d). The total number of test subjects who registered for, but did not take the test: 25, 285.

Section 99153 (g). A copy of all documents, pamphlets, and literature provided to the test subjects and the test score recipient.

The *LSAT/LSDAS Information Book and Sample LSAT* are distributed to all test candidates. Exhibit "A", the *1988-89 LSAT/LSDAS Information Book and Sample LSAT*, contains the required information on the following pages:

a) the purpose for which the test is constructed and intended to be used -- Page 9;

b) the subject matters included on each test and the knowledge and skills that the test purports to measure -- pages 9 and 76 - 92;

c) the manner in which the test is scored and the relationship of the raw and scaled scores to the skills and knowledge it measures -- pages 9, 21 - 23, and 31 - 32;

d) the basis upon which such scores will be made available to persons or institutions -- pages 23 - 24;

e) a representative set of sample test items -- pages 76 - 128.

The Act requires that test subjects be provided with explanatory information to facilitate proper interpretation of test scores. Test subjects are provided with information on pages 31 -32 of Exhibit "A" that explains the meaning of scores including: Validity, Reliability, Standard Error of Measurement, and Repeater Statistics. Information on these subjects also appears on the reverse of the test score report sent to each test subject. In fulfillment of other obligations, designated institutions that are score recipients have also been provided with this information. They additionally will have received the *LSAC/LSAS Desk Book* before the first report of test scores in the current test year. A copy of the *1988-89 LSAC/LSAS Desk Book* is included with this letter as Exhibit "B" in compliance with the provision that this information be provided to the Commission "prior to or coincident with the first reporting of test scores to any test score recipient during a testing year." Test dates and locations at which the LSAT was administered in California in 1988-89 are indicated at page 66 of Exhibit "A". The first test during the 1988-89 testing year was given on June 13, 1988, with scores to be reported to test score recipients approximately four to six weeks later.

Test score recipients are provided with standard technical data sufficient to describe the psychometric quality of the test. These are provided in Exhibit "B," the *LSAC/LSAS Desk Book*, a manual for users of the Law School Admission Test. Topics covered include: what the test measures (pg. 10), test scoring (pg. 12), test reporting (pg. 12-13), validity (pg. 16-17), standard error of measurement and reliability (pg. 17-18), statistical data for the LSAT-National (pg. 18-19), and avoiding misuse of the scores (pg. 22).

Section 99153 (h). Where applicable, the national average test score: 30.0, the state average test score: 30.2. Information on the standard error of measurement, and any other existing information relevant to a comparison of the test scores of the state's test subjects with test scores of previous test subjects of the past five years can be found under 99153 (g).

Section 99153 (i). For those tests used to predict academic performance, the most recent national or regional aggregation of data concerning the predictive validity of all the following:

1. Academic record or grades alone.

2. Standardized test score alone.

3. Academic record and test score combination.

4. Standardized test scores over and above the predictive validity of academic record alone.

Over the years, the majority of law schools have participated in statistical studies that compared students' LSAT scores with their first-year grades in law school. Although the correlations between test scores and grades are not perfect, these studies show that LSAT scores help to predict which students will de will in law school. Moreover, a combination of students' scores and undergraduate grade averages gives a better prediction than either factor considered alone. As is the case with undergraduate grade averages, the correlation between LSAT scores and first-year law school grades varies from one law school to another. During 1988, correlation studies were conducted for 156 of the 186 LSAC-member schools (186 includes Canadian members). Correlations between LSAT scores and first-year law school grades ranged from .19 - .64. Correlations between LSAT scores combined with undergraduate grade averages and first-year law school grades ranged from .28 - .69.

The published reference set entitled *Law School Admission Research* includes validity information in the study designated LSAC 76-78; W.B. Schrader, Summary of Law School Validity Studies, 1948-75, Vol.III, p. 519, which was filed with the Commission in September 1979. Volume IV of *Law School Admission Research*, which was filed with the Commission in December 1985, includes the most recent data concerning predictive validity in the studies designated LSAT-82-1, F.R. Evans, Recent Trends in Law School Validity Studies, p. 347, and LSAC-83-1, R. L. Linn and C.N. Hastings, A Meta-Analysis of the Validity of Predictors of Performance in Law School. These studies have been distributed to institutions that are test score recipients as required.

Section 99153 (j). Using available data, the racial, ethnic, and sex breakdown of all test subjects taking the test during the testing year:

Male	68,358
Female	53,470
No response	150
American Indian	602
Black/Afro-American	8,599
Caucasian/White	94,470
Chicano/Mexican-American	1,284
Hispanic	2,873
Asian-American/Pacific Islander	4,839
Puerto Rican	1,511
Other	108
No response	8,142
Total	121,978

To meet the requirements of Section 99153 (e), (f), and (k), I am enclosing a copy of the 1988-89 *Audited Financial Report* for LSAC/LSAS along with detailed information on the fee schedule in use during that fiscal year (Exhibit "C" and Exhibit "B", page 7). As you will note, LSAC/LSAS provides comprehensive admission services to law school applicants and to law schools; thus, allocations of revenue to discrete services would not provide an accurate picture of the relationship of fees to services. We feel that the audited financial report will afford you a greater familiarity with the financial posture of LSAC/LSAS than would be possible by artificially disaggregating financial data and allocating it to specific services.

Information required by Section 99155 is reported below for the program year ending 1988-89, with reference to applicable sections of the Act.

Section 99155 (a). The total number of test subjects who took the test at a test center located in the state of California: 13,394 (this number may include individuals taking the test more than once).

Section 99155 (b). The performance of California test subjects. The state average score: 30.2.

Information relevant to a comparison of the test scores of state's test subjects with test scores of previous subjects of the past five years can be found in this letter of compliance under 99153 (g).

Section 99155 (c). The predictive validity of test scores as specified in subdivision (i) of Section 19953. Information relevant to validity is contained in this letter of compliance under 99153 (i).

Section 19955 (d). A description of the information specified in subdivisions (a), (b), and (c) according to the sex and ethnicity of test subjects.

(a) Using available data, the racial, ethnic, and sex breakdown of all test subjects taking the test during the testing year in the state of California:

Male	7,220
Female	6,159
American Indian	110
Black/Afro-American	881
Caucasian/White	9,027
Chicano/Mexican-American	543
Hispanic	522
Asian-American/Pacific Islander	1,156
Puerto Rican	52
Other	15
No response	1,088
Total	13,394

(b). Using available data, the racial, ethnic, and sex breakdown of all test scores for subjects taking the test during the testing year in the state of California (this data may include more than one score for some individuals, but does not include scores that were cancelled).

Male	30.5
Female	30.0
No response	29.8
American Indian	27.8
Black/Afro-American	22.4
Caucasian/White	32.0
Chicano/Mexican-American	26.1
Hispanic	26.7
Asian-American/Pacific Islander	29.7
Puerto Rican	25.2
No response	27.1
Other	25.9
Total	30.2

(c). The published reference set entitled *Law School Admission Research* includes information on validity broken down by sex, race, and ethnic group in the study designated LSAC 76-6; Barbara Pitcher, Subgroups Validity Study, Vol. III, p. 413, which was filed with the Commission in January 1987.

Section 99155 (e). The revenues received by test sponsors, and the proportion of those revenues expended for test development and administration. A copy of the 1988-89 *Audited Financial Report* is attached as Exhibit "C".

This completes the information required by the Act. Please feel free to contact me if I can provide any further information.

Sincerely,

Robert L. McKinley

Robert L. McKinley
Deputy Vice President
Test Development

RLM:jm
Enclosures

EXHIBITS AND ENCLOSURES

Exhibit A -- 1988 - 89 *LSAT/LSDAS Information Book and Sample LSAT*

Exhibit B -- 1988 - 89 *LSAC/LSAS Desk Book*

Exhibit C -- 1988 -89 *Audited Financial Report*

Enclosures -- 1) Disclosed test (3 copies) and answer keys
June 13, 1988
October 1, 1988
December 3, 1988
February 11, 1989

2) 1988 - 89 *LSAT/LSDAS Information Book and Sample LSAT*

3) 1988 - 89 *LSAC/LSAS Desk Book*

4) 1988 - 89 *Audited Financial Report*

LAW SCHOOL ADMISSION SERVICES, INC. AND
LAW SCHOOL ADMISSION COUNCIL, INC.

Combined Statements of Changes in Fund Balances
For Years Ended June 30, 1988 and 1989

	General Operating Fund	Financial Aid Fund	Investment Fund	Property and Equipment Fund	Research Fund	Minority Recruitment Fund	Total All Funds
Fund balances, June 30, 1987, as previously reported	$ 13,332,436	$ -	$ -	$ -	$ -	$ -	$13,332,436
Retroactive restatement and reclassification (note 5)							
Capitalize inventory costs	161,594	-	-	-	-	-	161,594
Defer and amortize test development costs	987,809	-	-	-	-	-	987,809
Record investments at market	-	-	(692,055)	-	-	-	(692,055)
Adopt fund accounting	(14,481,839)	-	6,962,214	5,422,540	1,396,458	700,627	-
Fund balances, June 30, 1987, as restated	-	-	6,270,159	5,422,540	1,396,458	700,627	13,789,784
Excess (deficiency) of revenues over expenses, as restated	5,518,723	53,514	1,052,532	(62,725)	(3,050)	(70,113)	6,488,881
Interfund transfers							
Loan program financing costs	(155,131)	155,131	-	-	-	-	-
Research expenditures	(3,050)	-	-	-	3,050	-	-
Research fund limitation adjustment	396,458	-	-	-	(396,458)	-	-
Financial aid fund excess	53,514	(53,514)	-	-	-	-	-
General operating fund excess	(5,810,514)	-	5,810,514	-	-	-	-
Depreciation	-	-	1,006,575	(1,006,575)	-	-	-
Purchase of property and equipment	-	-	(1,012,092)	1,012,092	-	-	-
Fund balances, June 30, 1988, as restated	-	155,131	13,127,688	5,365,332	1,000,000	630,514	20,278,665
Excess (deficiency) of revenues over expenses	3,808,988	(845,018)	1,459,771	(29,963)	-	(53,137)	4,340,641
Restricted project transfer	(866,681)	-	-	-	866,681	-	-
Interfund transfers							
Financial aid fund (deficiency)	(689,887)	689,887	-	-	-	-	-
General operating fund excess	(2,252,420)	-	2,252,420	-	-	-	-
Depreciation	-	-	1,137,895	(1,137,895)	-	-	-
Purchase of property and equipment	-	-	(2,566,128)	2,566,128	-	-	-
Fund balances, June 30, 1989	$ -	$ -	$15,411,646	$ 6,763,602	$1,866,681	$ 577,377	$24,619,306

See notes to combined financial statements

BEST COPY AVAILABLE

LAW SCHOOL ADMISSION SERVICES, INC. AND
LAW SCHOOL ADMISSION COUNCIL, INC.

Combined Statements of Revenues and Expenses

	Year Ended June 30, 1989						Total All Funds Year Ended June 30	
	General Operating Fund	Financial Aid Fund	Investment Fund	Property and Equipment Fund	Research Fund	Minority Recruitment Fund	1989	1988*
Revenues								
Admission service fees	$ 18,029,661	$ -	$ -	$ -	$ -	$ -	$18,029,661	$16,014,814
Publication program	966,356	-	-	-	-	-	966,356	974,408
Student loan program	-	853,640	-	-	-	-	853,640	696,214
Forums	255,988	-	-	-	-	-	255,988	199,725
Workshops	92,619	26,200	-	-	-	-	118,819	59,480
Data output and reports	88,285	-	-	-	-	-	88,285	120,254
Interest income	-	-	1,799,167	-	-	-	1,799,167	1,337,403
Net loss on disposal of long-term investments	-	-	(643,601)	-	-	-	(643,601)	(154,381)
Unrealized appreciation (depreciation) of long-term investments	-	-	304,205	-	-	-	304,205	(130,490)
Miscellaneous income (expense)	1,544	-	-	(29,963)	-	-	(28,419)	(57,002)
Total revenues	19,434,453	879,840	1,459,771	(29,963)	-	-	21,744,101	19,060,425
Expenses (notes 1 and 4)								
Personnel	5,171,200	362,826	-	-	-	-	5,534,026	4,728,344
Professional services	2,653,362	611,415	-	-	-	-	3,264,777	1,898,891
Law school education programs	241,003	-	-	-	-	53,137	294,140	262,052
Physical plant	568,380	42,328	-	-	-	-	610,708	533,005
Equipment, supplies, materials and maintenance	3,965,872	384,604	-	-	-	-	4,350,476	3,028,546
Communications and shipping	1,401,204	114,664	-	-	-	-	1,515,868	1,093,748
General business	1,624,444	209,021	-	-	-	-	1,833,465	1,026,958
Total expenses	15,625,465	1,724,858	-	-	-	53,137	17,403,460	12,571,544
Excess (deficiency) of revenues over expenses	3,808,988	(845,018)	1,459,771	(29,963)	-	(53,137)	4,340,641	6,488,881
Restricted project transfer	(866,681)	-	-	-	866,681	-	-	-
Excess (deficiency) of revenues over expenses after restricted project transfer	$ 2,942,307	$ (845,018)	$ 1,459,771	$ (29,963)	$ 866,681	$ (53,137)	$ 4,340,641	$ 6,488,881

*Restated; see note 5
See notes to combined financial statements

AAMC

ASSOCIATION OF
AMERICAN
MEDICAL COLLEGES

ONE DUPONT CIRCLE, NW
WASHINGTON, DC 20036
TELEPHONE (202) 828-0400

March 6, 1990

Jeane Ludwig
California Postsecondary
Education Commission
Third Floor
1020 Twelfth Street
Sacramento, California 95814

Dear Ms. Ludwig:

The information noted below is submitted in response to the requirements of Sections 99154, 99155 and 99157 of the California Education Code concerning the Medical College Admission Test (MCAT).

The summary of income and expenses for the MCAT and AMCAS as required by Sections 99154 and 99155 is delineated on the attached statement. The following data on the MCAT is reported for the July 1, 1988 to June 30, 1989 test year:

Total number of tests administered	38,149
Total number of individuals taking the MCAT once during the test year	35,187
Total number of individuals taking the MCAT twice during the test year	1,481
Total number of individuals who registered but did not take the test for which they registered	6,628

Since the test is given once in the spring and once in the fall, the maximum number of times an individual can sit for the test during a calendar year is two. The MCAT fee was $85.00 for the fall 1988 administration and $95.00 for the spring 1989 administration. Individuals who register for a specific test administration and subsequently do not sit for that test are provided the opportunity to register for the following test administration for no additional fee.

The attached document entitled, "Explanation of Scores for Examinees" accompanies all score reports to examinees to assist in the interpretation of their score performance. This document is accompanied by a table which depicts the aggregate performance of all examinees sitting for the same test. The MCAT Student Manual is still available to examinees and has not changed since last year.

If you have any questions concerning any of the enclosed information, please feel free to get in touch with me.

Sincerely,

Judith A. Koenig

Judith A. Koenig
Research Associate
Section for Educational Research

JK:pc
Enclosures: September 1988 Table 1
April 1989 Table 1
MCAT 1988 Summary of Score Distributions by Areas of Assessment
MCAT 1989 Registration Packet
Explanation of Scores for Examinees

STATEMENT OF INCOME AND EXPENSES
MEDICAL COLLEGE ADMISSIONS TEST (MCAT)
AMERICAN MEDICAL COLLEGE APPLICATION SERVICE (AMCAS)
FOR THE PERIOD JULY 1, 1988 TO JUNE 30, 1989

	MCAT	AMCAS
EXPENSES		
A. Directly Attributable to the Test		
1) MCAT Research and Development	450,791	-
2) Operations	1,578,945	-
3) Interpretive Services & Information Dissemination	489,077	-
4) Reserve for Future Redesign	-	-
5) Special Legal Services	76,116	-
B. Indirectly Attributable to the Test		
1) Overhead	131,448	699,947
C. Data Assembly Services		
1) AMCAS Reporting	-	2,560,210
2) AMCAS Development	-	32,700
TOTAL EXPENSES	2,726,377	3,292,857
INCOME		
MCAT Testing Fees	3,750,181	-
Additional MCAT Score Report Fees	133,792	-
AMCAS Fees	-	4,492,640
TOTAL INCOME	3,883,973	4,492,640
INCOME OVER EXPENSES	1,157,596	1,199,783

MCAT RESEARCH & DEVELOPMENT - Continued development of test items and forms and research concerned with test interpretation.

OPERATIONS - Activities associated with national test administration and score reporting.

INTERPRETIVE SERVICES & INFORMATION DISSEMINATION - Provision of materials, reports, and consulation regarding MCAT interpretation and performance.

OVERHEAD - 70% on salaries of AAMC personnel. Calculated at federally audited rate.

AMCAS REPORTING - Organization, validation, and dissemination of application materials, including MCAT scores.

End of CAREPORT

PERCENTAGES OF MCAT EXAMINEES ACHIEVING SCALED SCORE LEVELS AND ASSOCIATED PERCENTILE RANK RANGES BY AREA OF ASSESSMENT
SEPTEMBER 1988 ADMINISTRATION
N = 20,583

	Biology		Chemistry		Physics		Science Problems		Skills Analysis: Reading		Skills Analysis: Quantitative		
Scaled Score	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Scaled Score
15	0.0	99.9	0.0	99.9	0.6	99.5-99.9	0.3	99.8-99.9	—	—	0.1	99.9	15
14	0.0	99.9	0.6	99.5-99.9	1.5	99-99.4	0.9	98.9-99.7	—	—	0.5	99.5-99.9	14
13	1.8	98.2-99.9	2.2	97.3-99.4	2.3	95.8-98	1.8	98-98.8	0.2	99.9	1.1	98.4-99.4	13
12	6.0	93-98.1	4.2	94-97.2	3.3	93-95.7	4.0	94-97	1.7	98.2-99.8	2.7	95.6-98.3	12
11	9.4	84-92	7.9	86-93	6.8	87-92	6.4	88-93	5.8	92.4-98.1	6.8	88.8-95.5	11
10	13.1	71-83	10.5	76-85	9.0	78-86	10.6	77-87	14.0	79-92.3	7.6	82-88.7	10
9	15.2	55-70	10.9	65-75	11.4	66-77	12.6	64-76	16.9	62-78	12.9	69-81	9
8	15.2	40-54	12.6	52-64	15.2	51-65	15.0	49-63	18.5	44-61	13.4	56-68	8
7	13.9	26-39	15.7	37-51	16.3	35-50	12.6	37-48	13.7	30-43	14.9	41-55	7
6	9.4	17-25	14.5	22-36	12.4	22-34	16.3	20-36	9.4	21-29	14.0	27-40	6
5	6.7	09.4-16	12.7	08.5-21	11.3	09.9-21	10.7	08.8-19	6.8	13-20	12.0	15-26	5
4	5.7	03.7-09.3	6.5	2-08.4	7.7	02.2-09.8	6.7	02.2-08.7	4.7	08.3-12.9	7.9	7-14	4
3	2.5	01.2-03.6	1.5	00.5-01.9	1.9	00.3-02.1	1.7	00.5-02.1	2.7	05.5-08.2	4.4	01.7-6	3
2	0.9	00.3-01.1	0.4	00.0-00.4	0.2	00.0-00.2	0.4	00.0-00.4	2.4	03.1-05.4	1.4	00.3-01.6	2
1	0.2	00.0-00.2	0.0	0.0	—	—	0.0	0.0	3.0	00.0-03	0.2	00.0-00.2	1
	Scaled Score		**Scaled Score**		**Scaled Score**		**Scaled Score**		**Scaled Score**		**Scaled Score**		
	Mean = 8.1 Std. Deviation = 2.45		Mean = 7.7 Std. Deviation = 2.45		Mean = 7.7 Std. Deviation = 2.52		Mean = 7.7 Std. Deviation = 2.44		Mean = 7.5 Std. Deviation = 2.49		Mean = 7.3 Std. Deviation = 2.49		

TABLE 1

PERCENTAGES OF MCAT EXAMINEES ACHIEVING SCALED SCORE LEVELS AND ASSOCIATED PERCENTILE RANK RANGES BY AREA OF ASSESSMENT

APRIL 1989 ADMINISTRATION

N = 17,502

	Biology		Chemistry		Physics		Science Problems		Skills Analysis: Reading		Skills Analysis: Quantitative		
Scaled Score	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Percent Achieving Score	Percentile Rank Range	Scaled Score
15	0.0	99.9	0.1	99.9	0.6	99.5-99.9	0.5	99.7-99.9	—	—	0.1	99.9	15
14	0.1	99.9	0.6	99.9	1.3	98.2-99.4	1.5	99-99.6	—	—	0.3	99.8-99.9	14
13	2.0	98-99.9	3.1	99.4-99.9	2.1	97-98.1	2.2	96-98	0.3	99.8-99.9	1.2	98.6-99.7	13
12	6.7	92-97.9	4.9	97-99.3	4.7	92-96	4.8	92-95.9	2.7	98-99.7	3.7	96-98.5	12
11	10.1	82-91	7.2	92-96	7.5	85-91	5.8	86-91	8.4	90-97	7.3	89-95	11
10	15.4	67-81	12.7	85-91	10.7	74-84	11.1	75-85	14.5	75-89	10.0	79-88	10
9	15.3	51-66	10.9	72-84	11.9	62-73	12.0	63-74	17.6	58-74	11.8	67-78	9
8	13.2	38-50	12.7	62-71	13.5	49-61	14.5	49-62	17.2	40-57	16.0	51-66	8
7	11.3	27-37	14.2	49-61	14.4	34-48	14.5	34-48	11.6	29-39	12.1	39-50	7
6	9.4	17-26	14.5	35-48	13.6	21-33	14.7	19-33	7.3	21-28	15.5	23-38	6
5	7.0	10-16	11.2	20-34	11.0	08.9-20	10.6	07.9-18	7.1	14-20	10.9	12-22	5
4	5.9	03.7-9	6.3	07.9-19	7.1	01.8-08.8	5.7	02.1-07.8	5.1	08.4-13	6.1	05.2-11	4
3	2.3	01.4-03.6	1.2	01.7-07.8	1.6	00.2-01.7	1.6	00.5-02	3.5	5-08.3	3.5	01.7-05.1	3
2	1.1	00.3-01.3	0.4	00.5-01.6	0.1	00.0-00.1	0.4	00.0-00.4	2.4	02.6-04.9	1.2	00.5-01.6	2
1	0.2	00.0-00.2	0.0	00.0-00.4	—	—	—	—	2.5	00.0-02.5	0.4	00.0-00.4	1
	Scaled Score		**Scaled Score**		**Scaled Score**		**Scaled Score**		**Scaled Score**		**Scaled Score**		
	Mean = 8.2		Mean = 7.9		Mean = 7.9		Mean = 7.9		Mean = 7.7		Mean = 7.5		
	Std. Deviation = 2.52		Std. Deviation = 2.49		Std. Deviation = 2.55		Std. Deviation = 2.51		Std. Deviation = 2.59		Std. Deviation = 2.48		

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CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature.

Members of the Commission

The Commission consists of 15 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. The other six represent the major segments of postsecondary education in California.

As of February 1990, the Commissioners representing the general public are:

Mim Andelson, Los Angeles;
C. Thomas Dean, Long Beach;
Henry Der, San Francisco;
Seymour M. Farber, M.D., San Francisco;
Rosalind K. Goddard, Los Angeles;
Helen Z. Hansen, Long Beach;
Lowell J. Paige, El Macero; *Vice Chair;*
Cruz Reynoso, Los Angeles; *Chair;* and
Stephen P. Teale, M.D., Modesto.

Representatives of the segments are:

Meredith J. Khachigian, San Clemente; appointed by the Regents of the University of California;

Theodore J. Saenger, San Francisco; appointed by the Trustees of the California State University;

John F. Parkhurst, Folsom; appointed by the Board of Governors of the California Community Colleges;

Harry Wugalter, Thousand Oaks; appointed by the Council for Private Postsecondary Educational Institutions;

Joseph D. Carrabino, Orange; appointed by the California State Board of Education; and

James B. Jamieson, San Luis Obispo; appointed by the Governor from nominees proposed by California's independent colleges and universities.

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including community colleges, four-year colleges, universities, and professional and occupational schools.

As an advisory planning and coordinating body, the Commission does not administer or govern any institutions, nor does it approve, authorize, or accredit any of them. Instead, it cooperates with other State agencies and non-governmental groups that perform these functions, while operating as an independent board with its own staff and its own specific duties of evaluation, coordination, and planning.

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, its meetings are open to the public. Requests to speak at a meeting may be made by writing the Commission in advance or by submitting a request before the start of the meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its executive director, Kenneth B. O'Brien, who is appointed by the Commission.

The Commission publishes and distributes without charge some 30 to 40 reports each year on major issues confronting California postsecondary education. Recent reports are listed on the back cover.

Further information about the Commission, its meetings, its staff, and its publications may be obtained from the Commission offices at 1020 Twelfth Street, Third Floor, Sacramento, CA 95814-3985; telephone (916) 445-7933.

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STANDARDIZED TESTS USED FOR HIGHER EDUCATION ADMISSION AND PLACEMENT IN CALIFORNIA DURING 1989

California Postsecondary Education Commission Report 90-16

ONE of a series of reports published by the Commission as part of its planning and coordinating responsibilities. Additional copies may be obtained without charge from the Publications Office, California Postsecondary Education Commission, Third Floor, 1020 Twelfth Street, Sacramento, California 95814-3985.

Recent reports of the Commission include:

89-28 Funding for the California State University's Statewide Nursing Program: A Report to the Legislature in Response to Supplemental Language to the 1988-89 Budget Act (October 1989)

89-29 First Progress Report on the Effectiveness of Intersegmental Student Preparation Programs: One of Three Reports to the Legislature in Response to Item 6420-0011-001 of the 1988-89 Budget Act (October 1989)

89-30 Evaluation of the Junior MESA Program: A Report to the Legislature in Response to Assembly Bill 610 (Hughes) of 1985 (October 1989)

89-31 Legislation Affecting Higher Education During the First Year of the 1989-90 Session: A Staff Report of the California Postsecondary Education Commission (October 1989)

89-32 California Colleges and Universities, 1990: A Guide to Degree-Granting Institutions and to Their Degree and Certificate Programs (December 1989)

90-1 Higher Education at the Crossroads: Planning for the Twenty-First Century (January 1990)

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90-4 Survey of Space and Utilization Standards and Guidelines in the Fifty States: A Report of MGT Consultants, Inc., Prepared for and Published by the California Postsecondary Education Commission (January 1990)

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90-7 Legislative Priorities of the Commission, 1990: A Report of the California Postsecondary Education Commission (January 1990)

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